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<151> 2000-03-16
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<212> PRT

<213> Homo sapiens

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Pro Pro Ala Ala Gly His Ser Arg Ala Gln Glu Asp Lys Val Leu Gly 65 70 75 80

Gly His Glu Cys Gln Pro His Ser Gln Pro Trp Gln Ala Ala Leu Phe 85 90 95

Gln Gly Gln Gln Leu Cys Gly Gly Val Leu Val Gly Gly Asn Trp 100 105 110

Val Leu Thr Ala Ala His Cys Lys Lys Pro Lys Tyr Thr Val Arg Leu 115 120 125

Gly Asp His Ser Leu Gln Asn Lys Asp Gly Pro Glu Gln Glu Ile Pro 130 140 Val
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15

<210> 53 <211> 379 <212> PRT

Gly 305

<213> Homo sapiens

Lys Arg Met Ala Met Ala Arg Arg Thr Met Phe Gln Lys Gly Glu Val

<222> (218)

135 140 His Asn Lys Pro Ser Gly Phe Trp Gly Met Ile Lys Ser Val Thr Thr Ser Ala Ser Gly Ser Glu Asn Leu Thr Leu Ile Gln Gln Glu Val Asp 170 Ala Leu Glu Glu Leu Ser Arg Gln Leu Phe Leu Glu Thr Ala Asp Leu Tyr Ala Thr Lys Glu Arg Ile Glu Tyr Ser Lys Thr Phe Lys Gly Lys Tyr Phe Asn Phe Leu Gly Tyr Phe Phe Ser Ile Tyr Cys Val Trp Lys Ile Phe Met Ala Thr Ile Asn Ile Val Phe Asp Arg Val Gly Lys Thr 235 Asp Pro Val Thr Arg Gly Ile Glu Ile Thr Val Asn Tyr Leu Gly Ile 250 Gln Phe Asp Val Lys Phe Trp Ser Gln His Ile Ser Phe Ile Leu Val Gly Ile Ile Ile Val Thr Ser Ile Arg Gly Leu Leu Ile Thr Leu Thr Lys Phe Phe Tyr Ala Ile Ser Ser Ser Lys Ser Ser Asn Val Ile Val Leu Leu Ala Gln Ile Met Gly Met Tyr Phe Val Ser Ser Val Leu 310 Leu Ile Arg Met Ser Met Pro Leu Glu Tyr Arg Thr Ile Ile Thr Glu 325 Val Leu Gly Glu Leu Gln Phe Asn Phe Tyr His Arg Trp Phe Asp Val 345 Ile Phe Leu Val Ser Ala Leu Ser Ser Ile Leu Phe Leu Tyr Leu Ala His Lys Gln Ala Pro Glu Lys Gln Met Ala Pro <210> 54 <211> 228 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (207) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (217) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE

<223> Xaa equals any of the naturally occurring L-amino acids <400> 54 Met Asn Ile Leu Cys Thr Cys Leu Leu Cys Val Leu Gln His Gln Ser Ala Ser Ala Ser Tyr Ala Leu Gly Asn Thr Pro Arg His Arg Gln Ser Leu Pro Arg Pro Ser Gly Gln Thr Ser Val Thr Thr Ser Cys Cys Asn Leu Leu Thr Glu Leu Arg His Pro Ser Ser Ala Asp Phe Gly His Gln Ser Ser Arg Phe Ser Leu Leu Glu Leu Arg His Pro Ser Ala Ala Ala Cys Gly His Gln Asn Ser Arg Phe Ser Leu Leu Glu Leu Arg Arg Pro Ser Ser Asp Ala Phe Gly His Gln Ser Ser Arg Leu Ser Leu Leu Asp 105 Leu Arg His Thr Ser Ala Ala Ala Phe Gly His Gln Asn Ser Arg Phe Ser Leu Val Glu Leu Arg His Pro Ser Ser Asp Ala Phe Gly His Gln Asn Ser Arg Phe Cys Phe Leu Asp Leu Arg His Pro Ser Ala Ala Ala 150 Phe Gly His Gln Asn Ser Arg Phe Ser His Val Glu Pro Arg His Pro 170 Ser Ser Ala Ala Phe Gly His Gln Asn Ser Arg Phe Ser Gly Leu Cys 185 Thr Leu Gly Cys Val Ala Ala Thr Pro Ala Pro Gly Phe Gln Xaa Phe 200 Gly Leu Arg Leu Gln Ala Thr Pro Xaa Xaa Ser Leu Val Leu Arg Leu

Leu Asp Leu Asp 225

<210> 55

<211> 552

<212> PRT

<213> Homo sapiens

<400> 55

Met Leu Lys Ala Ser Cys Leu Pro Leu Gly Phe Ile Val Phe Leu Pro 1 5 10 15

Ala Val Leu Leu Val Ala Pro Pro Leu Pro Ala Ala Asp Ala Ala 20 25 30

His Glu Phe Thr Val Tyr Arg Met Gln Gln Tyr Asp Leu Gln Gly Gln 35 40 45

Pro Tyr Gly Thr Arg Asn Ala Val Leu Asn Thr Glu Ala Arg Thr Met 50 60

Ala Ala Glu Val Leu Ser Arg Arg Cys Val Leu Met Arg Leu Leu Asp Phe Ser Tyr Glu Gln Tyr Gln Lys Ala Leu Arg Gln Ser Ala Gly Ala Val Val Ile Ile Leu Pro Arg Ala Met Ala Ala Val Pro Gln Asp Val Val Arg Gln Phe Met Glu Ile Glu Pro Glu Met Leu Ala Met Glu Thr 120 Ala Val Pro Val Tyr Phe Ala Val Glu Asp Glu Ala Leu Leu Ser Ile Tyr Lys Gln Thr Gln Ala Ala Ser Ala Ser Gln Gly Ser Ala Ser Ala 150 Ala Glu Val Leu Leu Arg Thr Ala Thr Ala Asn Gly Phe Gln Met Val Thr Ser Gly Val Gln Ser Lys Ala Val Ser Asp Trp Leu Ile Ala Ser Val Glu Gly Arg Leu Thr Gly Leu Gly Gly Glu Asp Leu Pro Thr Ile Val Ile Val Ala His Tyr Asp Ala Phe Gly Val Ala Pro Trp Leu Ser 210 Leu Gly Ala Asp Ser Asn Gly Ser Gly Val Ser Val Leu Leu Glu Leu 230 Ala Arg Leu Phe Ser Arg Leu Tyr Thr Tyr Lys Arg Thr His Ala Ala Tyr Asn Leu Leu Phe Phe Ala Ser Gly Gly Gly Lys Phe Asn Tyr Gln Gly Thr Lys Arg Trp Leu Glu Asp Asn Leu Asp His Thr Asp Ser Ser Leu Leu Gln Asp Asn Val Ala Phe Val Leu Cys Leu Asp Thr Val Gly Arg Gly Ser Ser Leu His Leu His Val Ser Lys Pro Pro Arg Glu Gly 310 Thr Leu Gln His Ala Phe Leu Arg Glu Leu Glu Thr Val Ala Ala His 330 Gln Phe Pro Glu Val Arg Phe Ser Met Val His Lys Arg Ile Asn Leu 345 Ala Glu Asp Val Leu Ala Trp Glu His Glu Arg Phe Ala Ile Arg Arg 360 Leu Pro Ala Phe Thr Leu Ser His Leu Glu Ser His Arg Asp Gly Gln 380 Arg Ser Ser Ile Met Asp Val Arg Ser Arg Val Asp Ser Lys Thr Leu 385 Thr Arg Asn Thr Arg Ile Ile Ala Glu Ala Leu Thr Arg Val Ile Tyr 405 410

Asn Leu Thr Glu Lys Gly Thr Pro Roy Asp Met Pro Val Phe Thr Glu 430 Thr Glu 430 Thr Glu 430 Met Gln Met Gln Ile Gln Gln Glu Gln Leu Asp Ser Val Met Asp Trp Leu 450 Thr Asn Gln Pro Arg Ala Ala Gln Leu Val Asp Lys Asp Ser Thr Phe Leu Glu His His Leu Ser Arg Tyr Leu Lys Asp Val Lys 480 Gln His His Val Lys Asp Ala Asp Lys Asp Gln Pro Glu Phe Val Phe Tyr Asp Gln Leu Lys Gln Val Met Asn Sos Tyr Arg Val Lys Pro Ala Val Phe Asp Leu Leu Lus Gln His Val Gln Val Gln Val Gly Ile Ala Ala Tyr Leu Cys Gly Met Ala Tyr Val Ala Val Gln His Phe Sos Rer Leu Leu Tyr Lys Thr Val Gln Arg

<210> 56 <211> 385 <212> PRT

<213> Homo sapiens

Leu Leu Val Lys Ala Lys Thr Gln

550

<400> 56 Met Ser Phe Ile Met Lys Leu His Arg His Phe Gln Arg Thr Val Ile Leu Leu Ala Thr Phe Cys Met Val Ser Ile Ile Ile Ser Ala Tyr Tyr Leu Tyr Ser Gly Tyr Lys Gln Glu Asn Glu Leu Ser Glu Thr Ala Ser 40 Glu Val Asp Cys Gly Asp Leu Gln His Leu Pro Tyr Gln Leu Met Glu Val Lys Ala Met Lys Leu Phe Asp Ala Ser Arg Thr Asp Pro Thr Val Leu Val Phe Val Glu Ser Gln Tyr Ser Ser Leu Gly Gln Asp Ile Ile Met Ile Leu Glu Ser Ser Arg Phe Gln Tyr His Ile Glu Ile Ala Pro Gly Lys Gly Asp Leu Pro Val Leu Ile Asp Lys Met Lys Gly Lys Tyr 120 Ile Leu Ile Ile Tyr Glu Asn Ile Leu Lys Tyr Ile Asn Met Asp Ser 130 Trp Asn Arg Ser Leu Leu Asp Lys Tyr Cys Val Glu Tyr Gly Val Gly 150 155

Val Ile Gly Phe His Lys Thr Ser Glu Lys Ser Val Gln Ser Phe Gln

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				165					170					175	
Leu	Lys	Gly	Phe 180	Pro	Phe	Ser	Ile	Туr 185		Asn	Leu	Ala	Val 190		Asp
Суѕ	Cys	Ile 195	Asn	Pro	His	Ser	Pro 200	Leu	Ile	Arg	Val	Thr 205		Ser	Ser
Lys	Leu 210	Glu	Lys	Gly	Ser	Leu 215	Pro	Gly	Thr	Asp	Trp 220		Val	Phe	Glr
Ile 225	Asn	His	Ser	Ala	Tyr 230	Gln	Pro	Val	Ile	Phe 235	Ala	Lys	Val	Lys	Thr 240
Pro	Glu	Asn	Leu	Ser 245	Pro	Ser	Ile	Ser	Lys 250	Gly	Ala	Phe	Tyr	Ala 255	Thr
Ile	Ile	His	Asp 260	Leu	Gly	Leu	His	Asp 265	Gly	Ile	Gln	Arg	Val 270	Leu	Phe
Gly	Asn	Asn 275	Leu	Asn	Phe	Trp	Leu 280	His	Lys	Leu	Ile	Phe 285	Ile	Asp	Ala
Ile	Ser 290	Phe	Leu	Ser	Gly	Lys 295	Arg	Leu	Thr	Leu	Ser 300	Leu	Asp	Arg	Туг
Ile 305	Leu	Val	Asp	Ile	Asp 310	Asp	Ile	Phe	Val	Gly 315	Lys	Glu	Gly	Thr	Arg 320
Met	Asn	Thr	Asn	Asp 325	Val	Lys	Val	Arg	Leu 330	Tyr	Phe	Leu	Lys	Phe 335	Gln
Ser	Ser	Val	His 340	Leu	Pro	Ala	Gly	Ile 345	Gln	Leu	Ser	Gln	Phe 350	Val	Leu
Gln	Leu	Gly 355	Tyr	Pro	Gly	His	Gly 360	Ile	Tyr	Trp	Glu	Ser 365	Leu	Gly	Asn
Leu	Gly 370	Leu	Ser	Leu	Thr	Leu 375	Asn	Gln	Leu	Arg	Arg 380	Leu	Cys	Ile	Ser
Ile 385															
<210> 57 <211> 190 <212> PRT <213> Homo sapiens															
<220> <221> SITE <222> (155) <223> Xaa equals any of the naturally occurring L-amino													nino	ació	ls
<222	> SI > (1	80)	uals	any	of	the	natu	rall	у ос	curr	ing	L-am	nino	acid	ls
	> 57 Leu		Leu	Ala 5	Thr	Leu	Ala	Ala	Leu 10	Phe	Ile	Leu	Thr	Thr 15	Ala
Val	Leu	Ala	Glu 20	Arg	Leu	Phe	Arg	Arg 25	Ala	Leu	Arg	Pro	Asp 30	Pro	Ser

His Arg Ala Pro Thr Leu Val Trp Arg Pro Gly Gly Glu Leu Trp Ile 35 40

Glu Pro Met Gly Thr Ala Arg Lys Arg Ser Glu Asp Trp Tyr Gly Ser 50 60

Ala Val Pro Leu Leu Thr Asp Arg Ala Pro Glu Pro Pro Thr Gln Val 65 70 75 80

Gly Thr Leu Glu Ala Arg Ala Thr Ala Pro Pro Ala Pro Ser Ala Pro 85 90 95

Asn Ser Ala Pro Ser Asn Leu Gly Pro Gln Thr Val Leu Glu Val Pro
100 105 110

Ala Arg Ser Thr Phe Trp Gly Pro Gln Pro Trp Glu Gly Arg Pro Pro 115 120 125

Ala Thr Gly Leu Val Ser Trp Ala Glu Pro Glu Gln Arg Pro Glu Ala 130 135 140

Ser Val Gln Phe Gly Ser Pro Gln Ala Arg Xaa Gln Arg Pro Gly Ser 145 150 155 160

Pro Asp Pro Glu Trp Gly Leu Gln Pro Arg Val Thr Leu Glu Gln Ile 165 170 175

Ser Ala Phe Xaa Lys Arg Glu Gly Arg Thr Ser Val Gly Phe 180 185 190

<210> 58

<211> 57

<212> PRT

<213> Homo sapiens

<400> 58

Met Ala Val Ser Val Ile Phe Cys Gln Lys Leu Lys Thr Gly Ser Val 1 5 10 15

Lys Leu Trp Ile Gln Met Leu Leu Trp Leu Gln Phe Ser Val Ala Cys 20 25 30

Leu Arg Leu Arg Lys Gly Gly Lys Trp Ser Pro Trp Gly Leu Met Leu 35 40 45

Lys Glu Val Ile Trp Lys Asp Cys Arg 50 55

<210> 59

<211> 443

<212> PRT

<213> Homo sapiens

<400> 59

Met Arg Leu Thr Arg Lys Arg Leu Cys Ser Phe Leu Ile Ala Leu Tyr 1 5 10 15

Cys Leu Phe Ser Leu Tyr Ala Ala Tyr His Val Phe Phe Gly Arg Arg 20 25 30

Arg Gln Ala Pro Ala Gly Ser Pro Arg Gly Leu Arg Lys Gly Ala Ala 35 40

Pro Ala Arg Glu Arg Gly Arg Glu Gln Ser Thr Leu Glu Ser Glu Glu Trp Asn Pro Trp Glu Gly Asp Glu Lys Asn Glu Gln Gln His Arg Phe Lys Thr Ser Leu Gln Ile Leu Asp Lys Ser Thr Lys Gly Lys Thr Asp Leu Ser Val Gln Ile Trp Gly Lys Ala Ala Ile Gly Leu Tyr Leu Trp Glu His Ile Phe Glu Gly Leu Leu Asp Pro Ser Asp Val Thr Ala Gln Trp Arg Glu Gly Lys Ser Ile Val Gly Arg Thr Gln Tyr Ser Phe Ile Thr Gly Pro Ala Val Ile Pro Gly Tyr Phe Ser Val Asp Val Asn 150 Asn Val Val Leu Ile Leu Asn Gly Arg Glu Lys Ala Lys Ile Phe Tyr 170 Ala Thr Gln Trp Leu Leu Tyr Ala Gln Asn Leu Val Gln Ile Gln Lys 180 Leu Gln His Leu Ala Val Leu Leu Gly Asn Glu His Cys Asp Asn 200 Glu Trp Ile Asn Pro Phe Leu Lys Arg Asn Gly Gly Phe Val Glu Leu Leu Phe Ile Ile Tyr Asp Ser Pro Trp Ile Asn Asp Val Asp Val Phe Gln Trp Pro Leu Gly Val Ala Thr Tyr Arg Asn Phe Pro Val Val Glu 250 Ala Ser Trp Ser Met Leu His Asp Glu Arg Pro Tyr Leu Cys Asn Phe Leu Gly Thr Ile Tyr Glu Asn Ser Ser Arg Gln Ala Leu Met Asn Ile Leu Lys Lys Asp Gly Asn Asp Lys Leu Cys Trp Val Ser Ala Arg Glu 295 300 His Trp Gln Pro Gln Glu Thr Asn Glu Ser Leu Lys Asn Tyr Gln Asp 310 Ala Leu Leu Gln Ser Asp Leu Thr Leu Cys Pro Val Gly Val Asn Thr Glu Cys Tyr Arg Ile Tyr Glu Ala Cys Ser Tyr Gly Ser Ile Pro Val Val Glu Asp Val Met Thr Ala Gly Asn Cys Gly Asn Thr Ser Val His 360 His Gly Ala Pro Leu Gln Leu Lys Ser Met Gly Ala Pro Phe Ile 375 380 Phe Ile Lys Asn Trp Lys Glu Leu Pro Ala Val Leu Glu Lys Glu Lys

Thr Ile Ile Leu Gln Glu Lys Ile Glu Arg Arg Lys Met Leu Leu Gln
405 410 415

Trp Tyr Gln His Phe Lys Thr Glu Leu Lys Met Lys Phe Thr Asn Ile 420 425 430

Leu Glu Ser Ser Phe Leu Met Asn Asn Lys Ser 440

<210> 60

<211> 211

<212> PRT

<213> Homo sapiens

<400> 60

Met Tyr Ala Ser Val Leu Leu Thr Gly Leu Leu Ser Leu Gln Arg Cys 1 5 10 15

Leu Ala Val Thr Arg Pro Ser Trp Arg Leu Gly Cys Ala Ala Arg Pro 20 25 30

Gly Pro Pro Leu Leu Leu Ala Val Trp Leu Ala Ala Leu Leu Leu Ala 35 40 45

Val Pro Ala Ala Val Tyr Arg His Leu Trp Arg Asp Arg Val Cys Gln 50 60

Leu Cys His Pro Ser Pro Val His Ala Ala Ala His Leu Ser Leu Glu 65 70 75 80

Thr Leu Thr Ala Phe Val Leu Pro Phe Gly Leu Met Leu Gly Cys Tyr 85 90 95

Ser Val Thr Leu Ala Arg Leu Arg Gly Ala Arg Trp Gly Ser Gly Arg 100 105 110

His Gly Ala Arg Val Gly Arg Leu Val Ser Ala Ile Val Leu Pro Ser 115 120 125

Ala Cys Ser Gly Pro Pro Thr Thr Gln Ser Thr Phe Cys Arg Arg Ser 130 135 140

Gln Arg Trp Leu His Arg Lys Gly Pro Trp Arg Ser Trp Ala Glu Pro 145 150 155 160

Ala Arg Arg Glu Arg Glu Leu Arg Pro Trp Pro Ser Ser Val Leu 165 170 175

Ala Ser Thr Arg Cys Ser Thr Ser Ser Pro Leu Glu Ile Cys Cys Pro 180 185 190

Gly Gln Val Pro Val Ser Ser Arg Gly Ser Ser Lys Ala Leu Gly Arg 195 200 205

Pro Glu Gly 210

<210> 61

<211> 151

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (137)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 61
Met Leu Leu Phe Asn Trp Ile Cys Ile Val Ile Thr Gly Leu Ala Met 1
Asp Met Gln Leu Leu Met Ile Pro Leu Ile Met Ser Val Leu Tyr Val 20
Trp Ala Gln Leu Asn Arg Asp Met Ile Val Ser Phe Trp Phe Gly Thr 45
Arg Phe Lys Ala Cys Tyr Leu Pro Trp Val Ile Leu Gly Phe Asn Tyr 50
Ile Ile Gly Gly Ser Val Ile Asn Glu Leu Ile Gly Asn Leu Val Gly 65
His Leu Tyr Phe Phe Leu Met Phe Arg Tyr Pro Met Asp Leu Gly 95
Arg Asn Phe Leu Ser Thr Pro Gln Phe Leu Tyr Arg Trp Leu Pro Ser 100
Arg Arg Gly Gly Val Ser Gly Phe Gly Val Pro Pro Ala Ser Met Arg 120
Arg Ala Ala Asp Gln Asn Gly Gly Xaa Gly Arg His Asn Trp Gly Gln

Gly Phe Arg Leu Gly Asp Gln 145 150

<210> 62 <211> 118 <212> PRT <213> Homo sapiens

<213> Homo sapien <400> 62

Met Ser Arg Ser Val Ala Leu Ala Val Leu Ala Leu Leu Ser Leu Ser 1 5 10 15

Gly Leu Glu Ala Ile Gln Arg Glu Ser Ser Pro Thr Leu Pro Ala Leu 20 25 30

Val Leu Pro Leu Pro Leu Cys Thr Leu Cys Gly Pro Arg Cys Ala Leu 35 40 45

Ser Leu Arg Asp Phe Pro Ser Pro Ser Ser Pro Trp Trp Pro Ala Val 50 55 60

Gly Leu Val Gln Gly Trp Ile Ser Gly Lys Arg Arg Gly Gly Leu Gly 65 70 75 80

Val Gly Lys Gly Val Arg Thr Arg Asp Ala Arg Tyr Leu Pro Leu Ser 85 90 95

Ala Gly Ser Arg Gly Asp Leu Trp Pro Thr Ala Thr Gly Gly Ser Gly 100 105 110

Gln Ser Leu Gly Arg Arg 115 <210> 63 <211> 322 <212> PRT <213> Homo sapiens <400> 63 Met Ala Val Ile Il 1

Met Ala Val Ile Ile Gly Val Ala Val Gly Ala Gly Val Ala Phe Leu 1 5 10 15

Val Leu Met Ala Thr Ile Val Ala Phe Cys Cys Ala Arg Ser Gln Arg 20 25 30

Asn Leu Lys Gly Val Val Ser Ala Lys Asn Asp Ile Arg Val Glu Ile $35 \hspace{1cm} 40 \hspace{1cm} 45$

Val His Lys Glu Pro Ala Ser Gly Arg Glu Gly Glu Glu His Ser Thr 50 55 60

Ile Lys Gln Leu Met Met Asp Arg Gly Glu Phe Gln Gln Asp Ser Val 65 70 75 80

Leu Lys Gln Leu Glu Val Leu Lys Glu Glu Lys Glu Phe Gln Asn 85 90 95

Leu Lys Asp Pro Thr Asn Gly Tyr Tyr Ser Val Asn Thr Phe Lys Glu 100 105 110

His His Ser Thr Pro Thr Ile Ser Leu Ser Ser Cys Gln Pro Asp Leu 115 120 125

Arg Pro Ala Gly Lys Gln Arg Val Pro Thr Gly Met Ser Phe Thr Asn 130 135 140

Ile Tyr Ser Thr Leu Ser Gly Gln Gly Arg Leu Tyr Asp Tyr Gly Ser 145 150 155 160

Gly Leu Cys Trp Ala Trp Ala Ala Arg Pro Ser Ser Phe Val Ser Gly 165 170 175

Ser Ser Arg Glu Ala Pro Ser Ala Thr Ala Ala Pro Ser Trp Thr Arg 180 185 190

Ser Val Thr Ala Ala Ser Ala Ala Ala Ala Ser Arg Met Ala Met Cys 195 200 205

Ser Ser Thr Arg Pro Ala Arg Leu Leu Leu Pro Pro Pro Thr Thr Pro 210 215 220

Ser Pro Arg Pro Arg Thr Leu Thr Pro Val Asp Pro Cys Ser Gly Gly 225 230 235 240

Cys Arg Leu Thr Ser Lys Asp His Thr Pro Arg Val Gly Thr Gly Gln 245 250 255

Gly Arg Gly Gln Gly Thr Phe Trp Leu Ser Arg Asp Glu Gly Tyr Phe
260 265 270

Ala Glu Asp Thr Arg Ile Gly His Phe Gln Asp Ser Leu Pro Ala Pro 275 280 285

Leu Pro Leu Pro Ser Phe Glu Ala Leu Ile Lys His Lys Ser Gly Ser 290 295 300

Pro Gly Ala Val Cys Gln Arg Trp Ala Gly Gly Glu Thr Asp Arg Gly 305 310 315 320

Cys Gly <210> 64 <211> 41 <212> PRT <213> Homo sapiens <400> 64 Met Ala Gln Cys Cys Leu Trp Leu Gly Ser Trp Val Leu Asp Met Ala Ser Cys Ser Pro Phe Ser Thr Gly Ile Trp Lys Thr Ser Met Glu Leu Gln Pro Ser Leu Gly Ser Val Gln Ser <210> 65 <211> 152 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (73) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (106) <223> Xaa equals any of the naturally occurring L-amino acids <400> 65 Met Arg Thr Cys Gly Ile Trp Phe Cys Phe Cys Thr Ser Ser Leu Arg Ile Met Ala Ser Ser Phe Thr Tyr Val Ala Ala Lys Asn Met Ile Ser Leu Leu Trp Leu His Ser Glu Met Gly Lys Val Pro Leu Ser Pro Ser Gln Gly Val Arg Trp Gly Cys Asp Ser Leu Leu Gln Cys Pro Ala Ala Gln Thr Ser Met Gly Gly Met Xaa Thr Gly Arg Leu Trp Gly Ser Asp Pro Lys Ala Val Ser Arg Gly Glu Ala Pro Val Gly Val Cys Tyr Arg Val Leu Phe Gln Phe Ser Arg Pro Xaa Ala Ala Cys Val Leu Ser Ser Ile Arg Pro Leu Pro Tyr Arg Lys Asp Arg Gly Leu Ser Val Ser Leu Gly Ser Cys Leu Gly Val Leu Glu Glu Ser Asp His Thr Trp Ala

Trp Arg Leu Ser Thr Arg Phe Cys

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<210> 66
<211> 45
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (37)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (42)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 66
Met Ile Leu Phe Leu Leu Pro Leu Pro Cys Gly Ala Phe Leu Gln
Phe Phe Thr Trp Leu Thr Leu Thr Gln Pro Leu Lys Phe Ser Ser Gly
Ala Ile Ser Ser Xaa Lys Gly Thr Ser Xaa Ser Pro Asp
<210> 67
<211> 72
<212> PRT
<213> Homo sapiens
<400> 67
Met Gly His Tyr Leu Leu Leu Thr Leu His Pro Pro Ala Thr His
Pro Ser Leu Ser Arg Val Leu Cys Val Leu Trp Cys Leu Ser Leu Trp
                                  25
Thr Gly Gln Lys Ile Thr Gln Asp Asn Ala Met Pro Phe Thr Leu Asp
Ser Val Val Phe Met Phe Ser Gln Leu Glu Cys Phe Ser Leu Met Ala
Ala Thr Gly Ser Tyr Ile Val Leu
<210> 68
<211> 362
<212> PRT
<213> Homo sapiens
<400> 68
Met Thr Leu Ile Glu Gly Val Gly Asp Glu Val Thr Val Leu Phe Ser
Val Leu Ala Cys Leu Leu Val Leu Ala Leu Ala Trp Val Ser Thr His
Thr Ala Glu Gly Gly Asp Pro Leu Pro Gln Pro Ser Gly Thr Pro Thr
Pro Ser Gln Pro Ser Ala Ala Met Ala Ala Thr Asp Ser Met Arg Gly
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Glu Ala Pro Gly Ala Glu Thr Pro Ser Leu Arg His Arg Gly Gln Ala Ala Gln Pro Glu Pro Ser Thr Gly Phe Thr Ala Thr Pro Pro Ala Pro Asp Ser Pro Gln Glu Pro Leu Val Leu Arg Leu Lys Phe Leu Asn Asp Ser Glu Gln Val Ala Arg Ala Trp Pro His Asp Thr Ile Gly Ser Leu Lys Arg Thr Gln Phe Pro Gly Arg Glu Gln Gln Val Arg Leu Ile Tyr Gln Gly Gln Leu Leu Gly Asp Asp Thr Gln Thr Leu Gly Ser Leu His Leu Pro Pro Asn Cys Val Leu His Cys His Val Ser Thr Arg Val Gly Pro Pro Asn Pro Pro Cys Pro Pro Gly Ser Glu Pro Arg Pro Leu Arg Ala Gly Asn Arg Gln Pro Ala Ala Ala Pro Ala Ala Pro Ala Val Ala Ala Ala Leu Val Leu Pro Asp Pro Val Pro Ala Leu Leu Ser Pro Asp Arg His Ser Gly Pro Gly Arg Leu His Pro Ala Pro Gln Ser Pro Gly Leu Cys His Val Pro Pro Val Val Pro Pro Arg Ala Leu Gly Ser Val Ala Gly Pro Ser Gly Pro Cys Ser Pro Arg Arg Gly Gly Ser Cys Cys 265 Leu Pro Arg Pro Ala Ser Pro Ala Cys Leu Phe Pro Leu Pro Trp Ser 280 Pro Ala Leu Arg Arg Gly Leu Pro Gly Leu Ala Glu Ala Pro Pro Cys Asp Arg Arg Gly Ser Gly Pro Pro Pro Gly Ala Ala Asp Pro Gln 310 Pro Ala Leu Gly Val Gly Ser Ser Gly Ser Gly Ile Cys Cys Arg Cys Leu Gly Pro Gly Gln Ser Arg Ala Ala Pro Gly Ala Arg Leu Ser Val Leu Pro Glu Asp Pro Ala Ala Ser Asn Pro

<210> 69

<211> 103

<212> PRT

<213> Homo sapiens

<400> 69

Met Ala Ser Leu Arg Ser Gln His Gly Pro Gly Ala Pro Glu Ser Leu

Arg Lys Val Leu Met Pro Ser Ser Met Gly Leu Leu Leu Ile Leu Tyr 20 Ala Arg Leu Pro Pro Ser Leu Val Gly Gln Ala Gly Arg Trp Ile Gly 35 Trp Ala Clu Arg Ala Gly Glo Ala Gly Arg Trp Ile Gly

Trp Ala Gly Arg Ala Gly Gly Gln Ala Val Arg Gln Pro Ser Pro Thr 50 60

Val Leu Ile Asp Gly Val Glu Cys Ser Asp Val Lys Phe Phe Gln Leu 65 70 75 80

Ala Ala Gln Trp Ser Ser His Val Lys His Phe Pro Ile Cys Ile Phe 85 90 95

Gly His Ser Lys Ala Thr Phe 100

<210> 70

<211> 90

<212> PRT

<213> Homo sapiens

<400> 70

Met Ala Val Thr Trp Arg Gln Ala Leu Leu Arg Ala Leu Cys Ile Ser 1 5 10 15

Gly Val Cys Ser Gln Gly Lys Trp Lys Arg Phe Phe Gln Ser Ser Thr 20 25 30

Ala His Pro Ser Met Arg Trp Arg Gly Arg Pro Leu Ala Arg Thr Leu 35 40 45

Ser Val Trp Thr Lys Asp Ala Lys Leu Cys Cys Gly His Ser Thr Asp 50 55 60

Gly Ala Leu Arg Ala Gly Arg Thr Pro Val Pro Ser Ser Glu Glu Ala 65 70 75 80

His Gly Leu Leu Gln Pro Cys Pro Gly Arg 85 90

<210> 71

<211> 43

<212> PRT

<213> Homo sapiens

<400> 71

Met Arg Trp Ile Trp Leu Thr Leu Thr Phe Gly Ile Thr Ser Gln Leu 1 5 10 15

Ala Ser Gly Lys Leu Ser Lys Tyr Trp Ala Ile Val Phe Glu Asp Arg 20 25 30

Ser Leu Glu Ser Tyr Val Ser Lys Phe Lys Cys 35 40

<210> 72

<211> 53

<212> PRT

<213> Homo sapiens

<400> 74

<400> 72 Met Leu Met Arg Tyr Lys Ser Tyr Phe Phe Ile Ser Ile Leu Leu Leu Cys Cys Phe Phe Leu Ile Leu Gln Val Tyr Lys Leu Ser Phe Lys Ile Leu Ser Gln Asp Phe Lys Asn Cys Arg Val Leu Val Trp Arg Ser Leu Pro Ser Phe Ser 50 <210> 73 <211> 105 <212> PRT <213> Homo sapiens <400> 73 Met Ser Phe Leu Gly Phe Ile Leu Asn Leu Gly Ala Arg Leu Ile Val Gln Pro Gln Ala Ala Leu Ala Ser Arg Gly Leu Arg Gly Gln Gly Leu Pro Cys Glu Thr Gln Val Cys Lys Arg Thr Leu Arg Pro Gly Ala Val Gly Trp Leu Val His Lys Gly Arg Arg Ala Leu Ser Ile Ser Arg Lys Ser Ala Leu Val Ser Leu Gly Val Met Tyr Val Gly Pro Gly Lys Arg Pro Gly Val Val Arg Lys His Ser Leu Leu Val Lys Met Gln Ala Arg Gly Lys Glu Val Ser Pro Thr Met Cys 100 <210> 74 <211> 192 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (48) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (49) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (78) <223> Xaa equals any of the naturally occurring L-amino acids

Met Trp Leu Leu Cys Val Ala Leu Ala Val Leu Ala Trp Gly Phe Leu

Trp Val Trp Asp Ser Ser Glu Arg Met Lys Ser Arg Glu Gln Gly Gly 20 25 30 Arg Leu Gly Ala Glu Ser Arg Thr Leu Leu Val Ile Ala His Pro Xaa

Xaa Glu Ala Met Phe Phe Ala Pro Thr Val Leu Gly Leu Ala Arg Leu 50 55 60

Arg His Trp Val Tyr Leu Leu Cys Phe Ser Ala Val Phe Xaa Arg Glu 65 70 75 80

Leu Ser Glu Tyr Thr Glu Val Leu Pro Leu Asn Pro Ser Gln Pro Arg 85 90 95

Asp Arg Ser Gly Arg Leu Thr Trp Trp Val Gly Gly Arg Arg Gln Leu 100 105 110

Ala Tyr Tyr Ala Ser Arg Ile Glu Glu Gln Arg Asn Ser Cys Ser Trp 115 120 125

Leu Tyr Ser Val Pro Ala Phe Pro Leu Gly Thr Pro Pro Val Leu Val 130 135 140

Ile Leu Trp Asn Phe Phe Leu Phe Val Glu Gly Ala Arg Ile Leu Thr 145 150 155 160

Leu Leu Tyr Ser Thr Arg Asn Asn Leu Cys Cys Ile Val Pro Ala Gln 165 170 175

Ser Leu Lys Leu Thr Ser Asn Asp Ser Lys Arg Pro Ser Cys Cys Leu 180 185 190

<210> 75

<211> 56

<212> PRT

<213> Homo sapiens

<400> 75

Met Trp Arg Cys Ile Phe Ser Met Met Cys Phe Ala Val Leu Leu Glu
1 5 10 15

Gly Ser Phe Ser Glu Ile Ser Leu Ser Ile Ser Ser Ser Ser Leu Phe

Arg Gly Trp Pro Arg Asp Ser Val Leu Ser Asp Thr Arg Leu Ala Arg 35 40 45

Thr Leu Ser Thr Asp Ser Thr Phe 50 55

<210> 76

<211> 59

<212> PRT

<213> Homo sapiens

<400> 76

Met Thr Pro Ser Leu Leu Ser Glu Lys Leu Cys Ser Leu Phe Phe Val 1 5 10 15 Leu Leu Gly Ile Ala Ser Ala Ala Phe Val Ser Ala Leu Trp Ala Trp 20 25 30

Ser Ser His Thr Glu Arg Leu Thr Ala Glu Pro Ser Ser Ser Ile Thr 35 40 45

Cys Leu Ser Pro Pro Trp Phe Phe Phe Pro Phe 50 55

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<210> 77
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<213> Homo sapiens

<220>

<221> SITE

<222> (64)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (68)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (159)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (269)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (348)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 77

Met Trp Gly Phe Arg Leu Leu Arg Ser Pro Pro Leu Leu Leu Leu Leu 1 5 10 15

Pro Gln Leu Gly Ile Gly Asn Ala Ser Ser Cys Ser Gln Ala Arg Thr $20 \\ 25 \\ 30$

Met Asn Pro Gly Gly Ser Gly Gly Ala Arg Cys Ser Leu Ser Ala Glu 35 40 45

Val Arg Arg Gln Cys Leu Gln Leu Ser Thr Val Pro Gly Ala Xaa 50 60

Pro Gln Arg Xaa Asn Glu Leu Leu Leu Ala Ala Ala Gly Glu Gly 65 70 75 80

Leu Glu Arg Gln Asp Leu Pro Gly Asp Pro Ala Lys Glu Glu Pro Gln
85 90 95

Pro Pro Pro Gln His His Val Leu Tyr Phe Pro Gly Asp Val Gln Asn 100 105 110

Tyr His Glu Ile Met Thr Arg His Pro Glu Asn Tyr Gln Trp Glu Asn 115 120 125

Trp Ser Leu Glu Asn Val Ala Thr Ile Leu Ala His Arg Phe Pro Asn

<211> 385

<212> PRT

130 135 140 Ser Tyr Ile Trp Val Ile Lys Cys Ser Arg Met His Leu His Xaa Phe 155 Ser Cys Tyr Asp Asn Phe Val Lys Ser Asn Met Phe Gly Ala Pro Glu 170 His Asn Thr Asp Phe Gly Ala Phe Lys His Leu Tyr Met Leu Leu Val Asn Ala Phe Asn Leu Ser Gln Asn Ser Leu Ser Lys Lys Ser Leu Asn Val Trp Asn Lys Asp Ser Ile Ala Ser Asn Cys Arg Ser Ser Pro Ser His Thr Thr Asn Gly Cys Gln Gly Glu Lys Val Arg Thr Cys Glu Lys 230 Ser Asp Glu Ser Ala Met Ser Phe Tyr Pro Pro Ser Leu Asn Asp Ala 245 Ser Phe Thr Leu Ile Gly Phe Ser Lys Gly Cys Val Xaa Leu Asn Gln Leu Leu Phe Glu Leu Lys Glu Ala Lys Lys Asp Lys Asn Ile Asp Ala 280 Phe Ile Lys Ser Ile Arg Thr Met Tyr Trp Leu Asp Gly Gly His Ser Gly Gly Ser Asn Thr Trp Val Thr Tyr Pro Glu Val Leu Lys Glu Phe Ala Gln Thr Gly Ile Ile Val His Thr His Val Thr Pro Tyr Gln Val 325 330 Arg Asp Pro Met Arg Ser Trp Ile Gly Lys Glu Xaa Lys Lys Phe Val 345 Gln Ile Leu Gly Asp Leu Gly Met Gln Val Thr Ser Gln Ile His Phe Thr Lys Glu Ala Pro Ser Ile Glu Asn His Phe Arg Val His Glu Val 370 Phe 385 <210> 78 <211> 292 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (288) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (289) <223> Xaa equals any of the naturally occurring L-amino acids

<400> 79

<400> 78 Met Asn Leu Cys Val Ile Leu Leu Ile Leu Val Phe Met Val Pro Phe Tyr Ile Gly Tyr Phe Ile Val Ser Asn Ile Arg Leu Leu His Lys Gln Arg Leu Leu Phe Ser Cys Leu Leu Trp Leu Thr Phe Met Tyr Phe Phe Trp Lys Leu Gly Asp Pro Phe Pro Ile Leu Ser Pro Lys His Gly Ile 55 Leu Ser Ile Glu Gln Leu Ile Ser Arg Val Gly Val Ile Gly Val Thr 65 70 75 80 Leu Met Ala Leu Leu Ser Gly Phe Gly Ala Val Asn Cys Pro Tyr Thr Tyr Met Ser Tyr Phe Leu Arg Asn Val Thr Asp Thr Asp Ile Leu Ala Leu Glu Arg Arg Leu Leu Gln Thr Met Asp Met Ile Ile Ser Lys Lys Lys Arg Met Ala Met Ala Arg Arg Thr Met Phe Gln Lys Gly Glu Val 135 His Asn Lys Pro Ser Gly Phe Trp Gly Met Ile Lys Ser Val Thr Thr Ser Ala Ser Gly Ser Glu Asn Leu Thr Leu Ile Gln Gln Glu Val Asp 170 Ala Leu Glu Glu Leu Ser Arg Gln Leu Phe Leu Glu Thr Ala Asp Leu Tyr Ala Thr Lys Glu Arg Ile Glu Tyr Ser Lys Thr Phe Lys Gly Lys Tyr Phe Asn Phe Leu Gly Tyr Phe Phe Ser Ile Tyr Cys Val Trp Lys Ile Phe Met Ala Thr Ile Asn Ile Val Phe Asp Arg Val Gly Lys Thr 230 Asp Pro Val Thr Arg Gly Ile Glu Ile Thr Val Asn Tyr Leu Gly Ile 250 Gln Phe Asp Val Lys Phe Trp Ser Gln His Ile Ser Phe Ile Leu Val 265 Gly Ile Ile Ile Val Thr Ser Ile Arg Gly Leu Leu Ile Thr Leu Xaa 280 Xaa Val Ile Leu 290 <210> 79 <211> 65 <212> PRT <213> Homo sapiens

Met Ile Trp Leu Ser Val Cys Leu Leu Leu Val Tyr Lys Asn Ala Cys

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1
                   5
                                       10
                                                            15
 Asp Phe Cys Thr Leu Ile Leu Tyr Pro Glu Thr Leu Leu Lys Leu Leu
              20
                                   25
 Ile Ser Leu Arg Arg Phe Trp Ala Glu Thr Met Gly Phe Ser Arg Tyr
 Thr Ile Met Ser Ser Ala Asn Arg Asp Asn Leu Thr Ser Ser Phe Pro
Asn
 65
<210> 80
<211> 1010
<212> PRT
<213> Homo sapiens
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<222> (25)
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Met Lys Ala Glu Ile Lys Met Phe Phe Glu Thr Asn Glu Asn Lys Asp
Thr Thr Tyr Gln Asn Leu Trp Asp Xaa Phe Lys Ala Val Cys Arg Gly
Lys Phe Ile Ala Leu Asn Ala His Lys Arg Lys Gln Glu Arg Ser Lys
Ile Asp Thr Leu Thr Ser Gln Leu Lys Glu Leu Glu Lys Gln Glu Gln
Thr His Ser Lys Ala Ser Arg Arg Gln Glu Ile Thr Lys Ile Arg Ala
 65
                     70
                                                              80
Glu Leu Lys Glu Ile Glu Thr Gln Lys Thr Leu Gln Lys Ile Asn Glu
Ser Arg Ser Trp Phe Phe Glu Xaa Ile Asn Lys Ile Asp Arg Pro Leu
            100
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Ala Arg Leu Ile Lys Lys Lys Arg Glu Lys Asn Gln Ile Asp Ala Ile Lys Asn Asp Lys Gly Asp Ile Thr Thr Asp Pro Thr Glu Ile Gln Thr Thr Ile Arg Glu Tyr Tyr Lys His Leu Tyr Ala Asn Lys Leu Glu Asn Leu Glu Glu Met Asp Lys Phe Leu Asp Thr Tyr Thr Leu Pro Arg Leu 170 Asn Gln Glu Glu Val Glu Ser Leu Asn Arg Pro Ile Thr Gly Ser Glu Ile Xaa Ala Ile Ile Asn Ser Leu Pro Thr Lys Lys Ser Pro Gly Pro Asp Gly Phe Thr Ala Glu Phe Tyr Gln Arg Tyr Lys Glu Glu Leu Val Pro Phe Leu Leu Lys Leu Phe Gln Ser Ile Glu Lys Glu Gly Ile Leu Pro Asn Ser Phe Tyr Glu Ala Ser Ile Ile Leu Ile Pro Lys Pro Gly 245 250 Arg Asp Thr Thr Lys Lys Glu Asn Phe Arg Pro Ile Ser Leu Met Asn 265 Ile Asp Ala Lys Ile Leu Asn Lys Ile Leu Ala Asn Arg Ile Gln Gln His Ile Lys Lys Leu Ile His His Asp Gln Val Gly Phe Ile Pro Gly 290 Met Gln Gly Trp Phe Asn Ile Arg Lys Ser Ile Asn Val Ile Gln His 310 Ile Asn Arg Thr Lys Asp Lys Asn His Met Ile Ile Ser Ile Asp Ala 330 Glu Lys Ala Phe Asp Lys Ile Gln Gln Pro Phe Met Leu Lys Thr Leu 345 Asn Lys Leu Gly Ile Asp Gly Thr Tyr Xaa Lys Ile Ile Arg Ala Ile 360 Tyr Asp Lys Pro Thr Ala Asn Ile Ile Leu Asn Gly Gln Lys Leu Glu Ala Phe Pro Leu Lys Thr Gly Thr Arg Gln Gly Cys Pro Leu Ser Pro Leu Leu Phe Asn Ile Val Leu Glu Val Leu Ala Arg Ala Ile Arg Gln 405 Glu Lys Glu Ile Lys Gly Ile Gln Leu Gly Lys Glu Glu Val Lys Leu Ser Leu Phe Ala Asp Asp Met Ile Val Tyr Leu Glu Asn Pro Ile Val 440 Ser Ala Gln Asn Leu Leu Lys Leu Ile Ser Asn Phe Ser Lys Val Ser 455

Gly Tyr Lys Ile Asn Val Gln Lys Ser Gln Ala Phe Leu Tyr Thr Asn Asn Arg Gln Thr Glu Ser Gln Ile Met Ser Glu Leu Pro Phe Thr Ile Ala Ser Lys Arg Ile Lys Tyr Leu Gly Ile Gln Leu Thr Arg Asp Val Lys Asp Leu Phe Lys Glu Asn Tyr Lys Pro Leu Leu Xaa Glu Ile Lys Glu Asp Thr Asn Lys Trp Lys Asn Ile Pro Cys Ser Trp Val Gly Arg Ile Asn Ile Val Lys Met Ala Ile Leu Pro Lys Val Ile Tyr Arg Phe Asn Ala Ile Pro Ile Lys Leu Pro Met Thr Phe Phe Thr Glu Leu Glu 570 Lys Thr Thr Leu Lys Phe Ile Trp Asn Gln Lys Arg Ala Arg Ile Ala 585 Lys Ser Ile Leu Ser Gln Lys Asn Lys Ala Gly Gly Ile Thr Leu Pro 600 Asp Phe Lys Leu Tyr Tyr Lys Ala Thr Val Thr Lys Thr Ala Trp Tyr Trp Tyr Gln Asn Arg Asp Ile Asp Gln Trp Asn Arg Thr Glu Pro Ser Glu Ile Xaa Pro His Ile Tyr Asn Xaa Leu Ile Phe Asp Lys Pro Xaa 650 Lys Asn Lys Xaa Trp Gly Lys Asp Ser Leu Phe Asn Lys Trp Cys Trp 665 Glu Asn Trp Leu Ala Ile Cys Arg Lys Leu Lys Leu Asp Pro Phe Leu Thr Pro Tyr Thr Lys Ile Asn Ser Arg Trp Ile Lys Asp Leu Asn Val Arg Pro Lys Thr Ile Lys Thr Leu Glu Glu Asn Leu Gly Asn Thr Ile Gln Asp Ile Gly Met Gly Lys Asp Phe Met Xaa Lys Thr Pro Lys Ala Met Ala Thr Lys Ala Lys Ile Asp Lys Trp Asp Leu Ile Lys Leu Lys 745 Ser Phe Cys Thr Ala Lys Glu Thr Thr Ile Arg Val Asn Arg Gln Pro Thr Xaa Trp Glu Lys Ile Phe Ala Xaa Tyr Ser Ser Asp Lys Gly Leu Ile Ser Arg Ile Tyr Xaa Glu Leu Lys Gln Ile Tyr Lys Lys Xaa 795 Asn Asn Pro Ile Lys Lys Trp Ala Lys Asp Met Asn Arg His Phe Ser

Lys Glu Asp Ile Tyr Ala Ala Lys Xaa His Met Lys Lys Cys Ser Ser Ser Leu Ala Ile Arg Glu Met Gln Ile Lys Thr Thr Met Arg Tyr His 840 Leu Thr Pro Val Arg Met Ala Ile Ile Lys Lys Ser Gly Asn Asn Arg Cys Trp Arg Gly Cys Gly Glu Ile Gly Thr Leu Leu His Cys Trp Trp Asp Cys Lys Leu Val Gln Pro Leu Trp Lys Ser Val Trp Arg Phe Leu 890 Arg Asp Leu Glu Leu Glu Ile Pro Phe Asp Pro Ala Ile Pro Leu Leu 910 Gly Ile Tyr Pro Lys Asp Tyr Lys Ser Cys Cys Tyr Lys Asp Thr Cys Thr Arg Met Phe Ile Ala Ala Leu Phe Thr Ile Ala Lys Thr Trp Asn Gln Pro Lys Cys Pro Thr Met Ile Asp Trp Ile Lys Lys Met Trp His 950 955 Ile Tyr Thr Met Glu Tyr Tyr Ala Ala Ile Lys Asn Asp Glu Phe Met 970 Ser Phe Val Gly Thr Trp Met Lys Leu Glu Xaa Ile Ile Leu Ser Lys Leu Ser Gln Xaa Gln Lys Thr Lys His Arg Xaa Phe Ser Leu Ile Gly 1000 Gly Asn 1010

<210> 81 <211> 120

<212> PRT

<213> Homo sapiens

<400> 81

Met Arg Leu Thr Arg Lys Arg Leu Cys Ser Phe Leu Ile Ala Leu Tyr 1 5 10 15

Cys Leu Phe Ser Leu Tyr Ala Ala Tyr His Val Phe Phe Gly Arg Arg 20 25 30

Arg Gln Ala Pro Ala Gly Ser Pro Arg Gly Leu Arg Lys Gly Ala Ala 35 40 45

Pro Ala Arg Glu Arg Gly Arg Glu Gln Ser Thr Leu Glu Ser Glu 50 55 60

Glu Trp Asn Pro Trp Glu Gly Asp Glu Lys Asn Glu Gln Gln His Arg
65 70 75 80

Phe Lys Thr Ser Leu Gln Ile Leu Asp Lys Ser Thr Lys Gly Lys Thr 85 90 95

Asp Leu Ser Val Gln Ile Trp Gly Lys Ala Ala Ile Val Gln Ala Gly 100 105 110 Ser Val Ser Ala His Lys Thr Phe 115 120

<210> 82

<211> 77

<212> PRT

<213> Homo sapiens

<400> 82

Met Tyr Ala Ser Val Leu Leu Thr Gly Leu Leu Ser Leu Gln Arg Cys 1 5 10 15

Leu Ala Val Thr Arg Pro Phe Leu Ala Pro Arg Cys Ala Ala Arg Pro 20 25 30

Trp Pro Ala Ala Cys Cys Trp Arg Ser Gly Trp Pro Pro Cys Cys Ser 35 40 45

Pro Ser Arg Pro Pro Ser Thr Ala Thr Cys Gly Gly Thr Ala Tyr Ala 50 55 60

Ser Cys Ala Thr Arg Arg Ser Thr Pro Pro Pro Thr 65 70 75

<210> 83

<211> 256

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (184)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 83

Met Lys Ser Gly Ala Gly Leu Glu Gln Ser Leu Cys Arg Trp Arg His 1 5 10 15

His Trp Gly Gly Arg Arg Ala Gly Val Ala Phe Leu Val Leu Met Ala 20 25 30

Thr Ile Val Ala Phe Cys Cys Ala Arg Ser Gln Arg Asn Leu Lys Gly
35 40 45

Val Val Ser Ala Lys Asn Asp Ile Arg Val Glu Ile Val His Lys Glu 50 60

Pro Ala Ser Gly Arg Glu Gly Glu Glu His Ser Thr Ile Lys Gln Leu 65 70 75 80

Met Met Asp Arg Gly Glu Phe Gln Gln Asp Ser Val Leu Lys Gln Leu 85 90 95

Glu Val Leu Lys Glu Glu Glu Lys Glu Phe Gln Asn Leu Lys Asp Pro 100 105 110

Thr Asn Gly Tyr Tyr Ser Val Asn Thr Phe Lys Glu His His Ser Thr 115 120 125

Pro Thr Ile Ser Leu Ser Ser Cys Gln Pro Asp Leu Arg Pro Ala Gly 130 135 140

Lys Gln Arg Val Pro Thr Gly Met Ser Phe Thr Asn Ile Tyr Ser Thr

145 150 155 160 Leu Ser Gly Gln Gly Pro Leu Arg Leu Arg Gln Arg Phe Val Leu Gly Met Gly Ser Ser Ser Ile Glu Xaa Cys Glu Arg Glu Phe Gln Arg Gly 185 Ser Leu Ser Asp Ser Ser Ser Phe Leu Asp Thr Gln Cys Asp Ser Ser 200 Val Ser Ser Ser Gly Lys Gln Asp Gly Tyr Val Gln Phe Asp Lys Ala Ser Lys Ala Ser Ala Ser Ser Ser His His Ser Gln Ser Ser Gln 230 Asn Ser Asp Pro Ser Arg Pro Leu Gln Arg Arg Met Gln Thr His Val

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<210> 84
<211> 61
<212> PRT
<213> Homo sapiens
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<400> 84 Met Thr Leu Ile Glu Gly Val Gly Asp Glu Val Thr Val Leu Phe Ser

Val Leu Ala Cys Leu Leu Val Leu Ala Leu Ala Trp Val Ser Thr His

Thr Ala Glu Gly Gly Asp Pro Leu Pro Gln Pro Ser Gly Thr Pro Thr

Pro Ser Gln Pro Ser Ala Ala Trp Gln Leu Pro Thr Ala

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<210> 85
<211> 23
<212> PRT
<213> Homo sapiens
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<400> 85 Met Glu Leu Ser Gly Ile Leu Trp Gln Phe Ser Ala Thr Ser Phe Pro

Ser Ser Gln Ala Ser Trp Pro 20

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<210> 86
<211> 90
<212> PRT
<213> Homo sapiens
<400> 86
Met Ala Val Thr Trp Arg Gln Ala Leu Leu Arg Ala Leu Cys Ile Ser 1 5 10 15
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Gly Val Cys Ser Gln Gly Lys Trp Lys Arg Phe Phe Gln Ser Ser Thr

Ala His Pro Ser Met Arg Trp Arg Gly Arg Pro Leu Ala Arg Thr Leu 35 40 45

Ser Val Trp Thr Lys Asp Ala Lys Leu Cys Cys Gly His Ser Thr Asp 50 55 60

Gly Ala Leu Arg Ala Gly Arg Thr Pro Val Pro Ser Ser Glu Glu Ala 65 70 75 80

His Gly Leu Leu Gln Pro Cys Pro Gly Arg 85 90

<210> 87

<211> 90

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 87

Met Ala Val Thr Trp Xaa Gln Ala Leu Leu Arg Ala Leu Cys Ile Ser $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Gly Val Cys Ser Gln Gly Lys Trp Lys Arg Phe Phe Gln Ser Ser Thr 20 25 30

Ala His Pro Ser Met Arg Trp Arg Gly Arg Pro Leu Ala Arg Thr Leu $35 \hspace{1cm} 40 \hspace{1cm} 45$

Ser Val Trp Thr Lys Asp Ala Lys Leu Cys Cys Gly His Ser Thr Asp 50 60

Gly Ala Leu Arg Ala Gly Arg Thr Pro Val Pro Ser Ser Glu Glu Ala 65 70 75 80

His Gly Leu Leu Gln Pro Cys Pro Gly Arg 85 90

<210> 88

<211> 25

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (18)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 88

Met Gln Ile Leu Leu Phe Tyr Phe Ser Arg Phe Leu Ala Pro Ser 1 5 10 15

Arg Xaa Pro Thr Leu Glu Gly Val Gln
20 25

<210> 89

<211> 50

<212> PRT

<213> Homo sapiens

<400> 89

Met Gly Ala Trp Pro Pro Cys Pro Ala Arg Ser Ser Arg Arg Arg Ser 1 5 10 15

Leu Ala Ala Trp Cys Val Ala Cys Cys Trp Ser Ser Arg Trp Ala Ala 20 25 30

Pro Ser Ser Ser Thr His Cys Ala Arg Arg Asn Thr Gly Pro Ser Arg 35 40 45

Pro Arg 50

<210> 90

<211> 385

<212> PRT

<213> Homo sapiens

<400> 90

Met Trp Gly Phe Arg Leu Leu Arg Ser Pro Pro Leu Leu Leu Leu 1 5 10 15

Pro Gln Leu Gly Ile Gly Asn Ala Ser Ser Cys Ser Gln Ala Arg Thr 20 25 30

Met Asn Pro Gly Gly Ser Gly Gly Ala Arg Cys Ser Leu Ser Ala Glu 35 40 45

Val Arg Arg Gln Cys Leu Gln Leu Ser Thr Val Pro Gly Ala Glu 50 55 60

Pro Gln Arg Ser Asn Glu Leu Leu Leu Leu Ala Ala Gly Glu Gly 65 70 75 80

Leu Glu Arg Gln Asp Leu Pro Gly Asp Pro Ala Lys Glu Glu Pro Gln 85 90 95

Pro Pro Pro Gln His His Val Leu Tyr Phe Pro Gly Asp Val Gln Asn 100 105 110

Tyr His Glu Ile Met Thr Arg His Pro Glu Asn Tyr Gln Trp Glu Asn 115 120 125

Trp Ser Leu Glu Asn Val Ala Thr Ile Leu Ala His Arg Phe Pro Asn 130 135 140

Ser Tyr Ile Trp Val Ile Lys Cys Ser Arg Met His Leu His Lys Phe 145 150 155 160

Ser Cys Tyr Asp Asn Phe Val Lys Ser Asn Thr Phe Gly Ala Pro Glu 165 170 175

His Asn Thr Asp Phe Gly Ala Phe Lys His Leu Tyr Met Leu Val 180 185 190

Asn Ala Phe Asn Leu Ser Gln Asn Ser Leu Ser Lys Ser Leu Asn 195 200 205

Val Trp Asn Lys Asp Ser Ile Ala Ser Asn Cys Arg Ser Ser Pro Ser 210 215 220

His Thr Thr Asn Gly Cys Gln Gly Glu Lys Val Arg Thr Cys Glu Lys 225 230 235 240

Ser Asp Glu Ser Ala Met Ser Phe Tyr Pro Pro Ser Leu Asn Asp Ala Ser Phe Thr Leu Ile Gly Phe Ser Lys Gly Cys Val Val Leu Asn Gln 265 Leu Leu Phe Glu Leu Lys Glu Ala Lys Lys Asp Lys Asn Ile Asp Ala Phe Ile Lys Ser Ile Arg Thr Met Tyr Trp Leu Asp Gly Gly His Ser Gly Ser Asn Thr Trp Val Thr Tyr Pro Glu Val Leu Lys Glu Phe Ala Gln Thr Gly Ile Ile Val His Thr His Val Thr Pro Tyr Gln Val Arg Asp Pro Met Arg Ser Trp Ile Gly Lys Glu His Lys Lys Phe Val Gln Ile Leu Gly Asp Leu Gly Met Gln Val Thr Ser Gln Ile His Phe Thr Lys Glu Ala Pro Ser Ile Glu Asn His Phe Arg Val His Glu Val 370 375 380 Phe 385 <210> 91 <211> 21 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (6) <223> Xaa equals any of the naturally occurring L-amino acids <400> 91 Arg Pro Ser Trp Tyr Xaa Cys Arg Tyr Arg Ser Gly Ile Pro Gly Ser Thr His Ala Ser Gly <210> 92 <211> 124 <212> PRT <213> Homo sapiens <400> 92 Gln Leu Asp Gly Val Gly Leu Glu Ser Arg Ser Pro Gly Cys Ser Thr Trp Glu Lys Ala Asp Arg Val Arg Gly Pro Val Ala Gln Arg Ala Val Ala Ser Gly Ser Gly Lys Trp Arg Gln Glu Pro Ser Leu His Phe Ala Met Ser Phe Leu Ile Asp Ser Ser Ile Met Ile Thr Ser Gln Ile Leu

60

Phe Phe Gly Phe Gly Trp Leu Phe Phe Met Arg Gln Leu Phe Lys Asp 65 70 75 80

Tyr Glu Ile Arg Gln Tyr Val Val Gln Val Ile Phe Ser Val Thr Phe 85 90 95

Ala Phe Ser Cys Thr Met Phe Glu Leu Ile Ile Phe Glu Ile Leu Gly 100 105 110

Val Leu Asn Ser Ser Ser Arg Tyr Phe His Trp Lys 115 120

<210> 93

<211> 43

<212> PRT

<213> Homo sapiens

<400> 93

Gln Leu Asp Gly Val Gly Leu Glu Ser Arg Ser Pro Gly Cys Ser Thr
1 10 15

Trp Glu Lys Ala Asp Arg Val Arg Gly Pro Val Ala Gln Arg Ala Val
20 25 30

Ala Ser Gly Ser Gly Lys Trp Arg Gln Glu Pro 35

<210> 94

<211> 44

<212> PRT

<213> Homo sapiens

<400> 94

Ser Leu His Phe Ala Met Ser Phe Leu Ile Asp Ser Ser Ile Met Ile 1 5 10 15

Thr Ser Gln Ile Leu Phe Phe Gly Phe Gly Trp Leu Phe Phe Met Arg 20 25 30

Gln Leu Phe Lys Asp Tyr Glu Ile Arg Gln Tyr Val35 40

<210> 95

<211> 37

<212> PRT

<213> Homo sapiens

<400> 95

Val Gln Val Ile Phe Ser Val Thr Phe Ala Phe Ser Cys Thr Met Phe $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Glu Leu Ile Ile Phe Glu Ile Leu Gly Val Leu Asn Ser Ser Ser Arg 20 25 30

Tyr Phe His Trp Lys 35

<210> 96

<211> 43

<212> PRT

<213> Homo sapiens

<400> 96

Pro Arg Val Arg Pro Cys Arg Gly Glu Ser Ala Gly Ala Ala Ala Ala

Ala Val Pro Ser Gln Leu Pro Pro Arg Ala Ala Pro Pro Pro Ala Arg 25

Met Leu Glu Glu Ala Gly Glu Val Leu Glu Asn 35

<210> 97

<211> 34 <212> PRT

<213> Homo sapiens

<400> 97

His Lys Leu Leu Thr Glu Ile Gly Lys Val Ala Gly Thr Pro Ser Phe

Leu Leu Thr Phe Tyr Gly Ala Ser Val Gly Ile Val Gly Glu Ser Thr

Tyr Asn

<210> 98

<211> 25

<212> PRT

<213> Homo sapiens

<400> 98

Gly Arg Val Glu Gly Pro Pro Ala Trp Glu Ala Ala Pro Trp Pro Ser

Leu Pro Cys Gly Pro Cys Ile Pro Ile 20

<210> 99

<211> 332

<212> PRT

<213> Homo sapiens

<400> 99

Asn Leu Trp Gly Leu Gln Pro Arg Pro Pro Ala Ser Leu Leu Gln Pro

Thr Ala Ser Tyr Ser Arg Lys Asp Lys Asp Gln Arg Lys Gln Gln Ala

Met Trp Arg Val Pro Ser Asp Leu Lys Met Leu Lys Arg Leu Lys Thr

Gln Met Ala Glu Val Arg Cys Met Lys Thr Asp Val Lys Asn Thr Leu 55

Ser Glu Ile Lys Ser Ser Ser Ala Ala Ser Gly Asp Met Gln Thr Ser

Leu Phe Ser Ala Asp Gln Ala Ala Leu Ala Ala Cys Gly Thr Glu Asn

Ser Gly Arg Leu Gln Asp Leu Gly Met Glu Leu Leu Ala Lys Ser Ser 105 Val Ala Asn Cys Tyr Ile Arg Asn Ser Thr Asn Lys Lys Ser Asn Ser 120 Pro Lys Pro Ala Arg Ser Ser Val Ala Gly Ser Leu Ser Leu Arg Arg Ala Val Asp Pro Gly Glu Asn Ser Arg Ser Lys Gly Asp Cys Gln Thr 150 Leu Ser Glu Gly Ser Pro Gly Ser Ser Gln Ser Gly Ser Arg His Ser 170 Ser Pro Arg Ala Leu Ile His Gly Ser Ile Gly Asp Ile Leu Pro Lys Thr Glu Asp Arg Gln Cys Lys Ala Leu Asp Ser Asp Ala Val Val Ala Val Phe Ser Gly Leu Pro Ala Val Glu Lys Arg Arg Lys Met Val Thr Leu Gly Ala Asn Ala Lys Gly Gly His Leu Glu Gly Leu Gln Met 225 230 Thr Asp Leu Glu Asn Asn Ser Glu Thr Gly Glu Leu Gln Pro Val Leu 250 Pro Glu Gly Ala Ser Ala Ala Pro Glu Glu Gly Met Ser Ser Asp Ser Asp Ile Glu Cys Asp Thr Glu Asn Glu Glu Glu Glu His Thr Ser Val Gly Gly Phe His Asp Ser Phe Met Val Met Thr Gln Pro Pro Asp Glu Asp Thr His Ser Ser Phe Pro Asp Gly Glu Gln Ile Gly Pro Glu 310 Asp Leu Ser Phe Asn Thr Asp Glu Asn Ser Gly Arg

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<210> 100
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Met Trp Arg Val Pro Ser Asp Leu 35 40

<211> 40

<212> PRT

<213> Homo sapiens

<400> 100

Asn Leu Trp Gly Leu Gln Pro Arg Pro Pro Ala Ser Leu Leu Gln Pro 1 5 10 15

Thr Ala Ser Tyr Ser Arg Lys Asp Lys Asp Gln Arg Lys Gln Gln Ala
20 25 30

<210> 101

<211> 41

<212> PRT

<213> Homo sapiens

Lys Thr Asp Val Lys Asn Thr Leu Ser Glu Ile Lys Ser Ser Ser Ala 20 25 30

Ala Ser Gly Asp Met Gln Thr Ser Leu 35 40

<210> 102

<211> 41

<212> PRT

<213> Homo sapiens

<400> 102

Phe Ser Ala Asp Gln Ala Ala Leu Ala Ala Cys Gly Thr Glu Asn Ser $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Gly Arg Leu Gln Asp Leu Gly Met Glu Leu Leu Ala Lys Ser Ser Val $20 \hspace{1cm} 25 \hspace{1cm} 30$

Ala Asn Cys Tyr Ile Arg Asn Ser Thr 35 40

<210> 103

<211> 42

<212> PRT

<213> Homo sapiens

<400> 103

Asn Lys Lys Ser Asn Ser Pro Lys Pro Ala Arg Ser Ser Val Ala Gly $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Ser Leu Ser Leu Arg Arg Ala Val Asp Pro Gly Glu Asn Ser Arg Ser 20 25 30

Lys Gly Asp Cys Gln Thr Leu Ser Glu Gly 35 40

<210> 104

<211> 44

<212> PRT

<213> Homo sapiens

<400> 104

Ser Pro Gly Ser Ser Gln Ser Gly Ser Arg His Ser Ser Pro Arg Ala $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Leu Ile His Gly Ser Ile Gly Asp Ile Leu Pro Lys Thr Glu Asp Arg

Gln Cys Lys Ala Leu Asp Ser Asp Ala Val Val Val 35

<210> 105

<211> 42

<212> PRT

<213> Homo sapiens

<400> 105

Ala Val Phe Ser Gly Leu Pro Ala Val Glu Lys Arg Arg Lys Met Val 1 5 10 15

Thr Leu Gly Ala Asn Ala Lys Gly Gly His Leu Glu Gly Leu Gln Met 20 25 30

Thr Asp Leu Glu Asn Asn Ser Glu Thr Gly 35 40

<210> 106

<211> 44

<212> PRT

<213> Homo sapiens

<400> 106

Glu Leu Gln Pro Val Leu Pro Glu Gly Ala Ser Ala Ala Pro Glu Glu 1 5 10 15

Gly Met Ser Ser Asp Ser Asp Ile Glu Cys Asp Thr Glu Asn Glu Glu 20 25 30

Gln Glu Glu His Thr Ser Val Gly Gly Phe His Asp 35

<210> 107

<211> 38

<212> PRT

<213> Homo sapiens

<400> 107

Ser Phe Met Val Met Thr Gln Pro Pro Asp Glu Asp Thr His Ser Ser 1 10 15

Phe Pro Asp Gly Glu Gln Ile Gly Pro Glu Asp Leu Ser Phe Asn Thr 20 25 30

Asp Glu Asn Ser Gly Arg 35

<210> 108

<211> 33

<212> PRT

<213> Homo sapiens

<400> 108

His Ala Ser Gly Trp Ala Cys Leu Gly Arg Arg Arg Cys Arg Gly Phe
1 5 10 15

Ser Phe Arg Pro Leu His Gly Gly Gly Cys Leu Thr Gly Ser Pro Ser

Gly

<210> 109

<211> 476

<212> PRT

<213> Homo sapiens

<400> 109

His Ala Ser Gly Trp Ala Cys Leu Gly Arg Arg Arg Cys Arg Gly Phe 1 5 10 15

Ser Phe Arg Pro Leu His Gly Gly Gly Cys Leu Thr Gly Ser Pro Ser 20 25 30Gly Met Arg Leu Thr Arg Lys Arg Leu Cys Ser Phe Leu Ile Ala Leu Tyr Cys Leu Phe Ser Leu Tyr Ala Ala Tyr His Val Phe Phe Gly Arg Arg Arg Gln Ala Pro Ala Gly Ser Pro Arg Gly Leu Arg Lys Gly Ala 65 70 75 80 Ala Pro Ala Arg Glu Arg Arg Gly Arg Glu Gln Ser Thr Leu Glu Ser Glu Glu Trp Asn Pro Trp Glu Gly Asp Glu Lys Asn Glu Gln Gln His Arg Phe Lys Thr Ser Leu Gln Ile Leu Asp Lys Ser Thr Lys Gly Lys Thr Asp Leu Ser Val Gln Ile Trp Gly Lys Ala Ala Ile Gly Leu Tyr Leu Trp Glu His Ile Phe Glu Gly Leu Leu Asp Pro Ser Asp Val Thr 150 Ala Gln Trp Arg Glu Gly Lys Ser Ile Val Gly Arg Thr Gln Tyr Ser Phe Ile Thr Gly Pro Ala Val Ile Pro Gly Tyr Phe Ser Val Asp Val Asn Asn Val Val Leu Ile Leu Asn Gly Arg Glu Lys Ala Lys Ile Phe 200 Tyr Ala Thr Gln Trp Leu Leu Tyr Ala Gln Asn Leu Val Gln Ile Gln Lys Leu Gln His Leu Ala Val Val Leu Leu Gly Asn Glu His Cys Asp 230 Asn Glu Trp Ile Asn Pro Phe Leu Lys Arg Asn Gly Gly Phe Val Glu Leu Leu Phe Ile Ile Tyr Asp Ser Pro Trp Ile Asn Asp Val Asp Val Phe Gln Trp Pro Leu Gly Val Ala Thr Tyr Arg Asn Phe Pro Val Val 280 Glu Ala Ser Trp Ser Met Leu His Asp Glu Arg Pro Tyr Leu Cys Asn Phe Leu Gly Thr Ile Tyr Glu Asn Ser Ser Arg Gln Ala Leu Met Asn Ile Leu Lys Lys Asp Gly Asn Asp Lys Leu Cys Trp Val Ser Ala Arg 330 Glu His Trp Gln Pro Gln Glu Thr Asn Glu Ser Leu Lys Asn Tyr Gln 345 Asp Ala Leu Leu Gln Ser Asp Leu Thr Leu Cys Pro Val Gly Val Asn 360

Thr Glu Cys Tyr Arg Ile Tyr Glu Ala Cys Ser Tyr Gly Ser Ile Pro 370 380

Val Val Glu Asp Val Met Thr Ala Gly Asn Cys Gly Asn Thr Ser Val 385 390 395 400

His His Gly Ala Pro Leu Gln Leu Leu Lys Ser Met Gly Ala Pro Phe 405 410 415

Ile Phe Ile Lys Asn Trp Lys Glu Leu Pro Ala Val Leu Glu Lys Glu
420 425 430

Lys Thr Ile Ile Leu Gln Glu Lys Ile Glu Arg Arg Lys Met Leu Leu 435 440 445

Gln Trp Tyr Gln His Phe Lys Thr Glu Leu Lys Met Lys Phe Thr Asn 450 460

Ile Leu Glu Ser Ser Phe Leu Met Asn Asn Lys Ser 465 470 475

<210> 110

<211> 68

<212> PRT

<213> Homo sapiens

<400> 110

Pro Gly Asn Gly Phe Val Val Trp Ser Leu Ala Gly Trp Arg Pro Ala 1 5 10 15

Arg Gly Arg Pro Leu Ala Ala Thr Leu Val Leu His Leu Ala Leu Ala 20 25 30

Asp Gly Ala Val Leu Leu Thr Pro Leu Phe Val Ala Phe Leu Thr 35 40 45

Arg Gln Ala Trp Pro Leu Gly Gln Ala Gly Cys Lys Ala Val Tyr Tyr 50 60

Val Cys Ala Leu 65

<210> 111

<211> 85

<212> PRT

<213> Homo sapiens

<400> 111

Phe Gly Leu Leu Trp Ala Pro Tyr His Ala Val Asn Leu Leu Gln Ala 1 5 10 15

Val Ala Ala Leu Ala Pro Pro Glu Gly Ala Leu Ala Lys Leu Gly Gly
20 25 30

Ala Gly Gln Ala Ala Arg Ala Gly Thr Thr Ala Leu Ala Phe Phe Ser 35 40 45

Ser Ser Val Asn Pro Val Leu Tyr Val Phe Thr Ala Gly Asp Leu Leu 50 55 60

Pro Arg Ala Gly Pro Arg Phe Leu Thr Arg Leu Phe Glu Gly Ser Gly 65 70 75 80

Glu Ala Arg Gly Gly 85

<210> 112

<211> 72

<212> PRT

<213> Homo sapiens

<400> 112

Tyr Arg His Leu Trp Arg Asp Arg Val Cys Gln Leu Cys His Pro Ser 1 5 10 15

Val Leu Pro Phe Gly Leu Met Leu Gly Cys Tyr Ser Val Thr Leu Ala 35 40 45

Arg Leu Arg Gly Ala Arg Trp Gly Ser Gly Arg His Gly Ala Arg Val 50 60

Gly Arg Leu Val Ser Ala Ile Val 65 70

<210> 113

<211> 172

<212> PRT

<213> Homo sapiens

<400> 113

Ala Pro Arg Leu Leu Leu Leu Asn Leu Ser Ala Ser Pro Gly Pro Gln

1 10 15

Ser Cys Leu His Pro Ala Trp Glu Arg Asp Thr Ala Glu Leu Glu Asp 20 25 30

Phe Ala Gly His Arg His Ser Leu Pro Ala Ala Gly Gly Ala Ala Gly 35 40 45

Ala Ala Trp Gln Arg Leu Arg Gly Val Glu Leu Gly Gly Leu Ala Ala 50 60

Cys Thr Gly Ala Thr Ala Gly Gly His Ala Cys Ala Ala Pro Gly Ala 65 70 75 80

Gly Arg Arg Gly Ala Ala Ala His Ala Leu Cys Gly Leu Pro
85 90 95

Asp Pro Ala Ser Leu Ala Ala Gly Pro Gly Gly Leu Gln Gly Gly Val 100 105 110

Leu Arg Val Arg Ala Gln His Val Arg Gln Arg Ala Ala His Arg Pro 115 120 125

Ala Gln Pro Ala Ala Leu Pro Arg Gly His Pro Pro Leu Pro Gly Ala 130 135 140

Ser Val Arg Ser Pro Ala Leu Ala Arg Arg Leu Leu Leu Ala Val Trp 145 150 155 160

Leu Ala Ala Leu Leu Ala Val Pro Ala Ala Val 165 170 <210> 114

<211> 89

<212> PRT

<213> Homo sapiens

<400> 114

Pro Ser Ser Ala Cys Ser Gly Pro Pro Thr Thr Gln Ser Thr Phe Cys

1 10 15

Arg Arg Ser Gln Arg Trp Leu His Arg Lys Gly Pro Trp Arg Ser Trp 20 25 30

Ala Glu Pro Ala Arg Arg Glu Arg Glu Leu Arg Pro Trp Pro Ser 35 40 45

Ser Val Leu Ala Ser Thr Arg Cys Ser Thr Ser Ser Pro Leu Glu Ile 50 55 60

Cys Cys Pro Gly Gln Val Pro Val Ser Ser Arg Gly Ser Ser Lys Ala 65 70 75 80

Leu Gly Arg Pro Glu Gly Ala Ala Ala 85

<210> 115

<211> 149

<212> PRT

<213> Homo sapiens

<400> 115

Pro Gly Lys Pro Gly Arg Trp Ala Arg Arg Ala Ala Arg Arg Cys Thr 1 5 15

Thr Cys Ala Arg Ser Ala Cys Thr Pro Ala Cys Cys Ser Pro Ala Cys 20 25 30

Ser Ala Cys Ser Ala Ala Ser Arg Ser Pro Ala Pro Ser Trp Arg Leu 35 40 45

Gly Ala Gln Pro Gly Pro Gly Pro Pro Pro Ala Ala Gly Gly Leu Ala
50 55 60

Gly Arg Pro Val Ala Arg Arg Pro Gly Arg Arg Leu Pro Pro Pro Val 65 70 75 80

Glu Gly Pro Arg Met Pro Ala Val Pro Pro Val Ala Gly Pro Arg Arg 85 90 95

Arg Pro Pro Glu Pro Gly Asp Ser Asp Arg Phe Arg Ala Ser Phe Arg 100 105 110

Ala Asp Ala Arg Leu Gln Arg Asp Ala Gly Thr Ala Ala Gly Arg 115 120 125

Pro Leu Gly Leu Arg Ala Ala Arg Gly Ala Gly Gly Pro Ala Gly Glu 130 135 140

Arg His Arg Ala Phe

<210> 116

<211> 77

<212> PRT

<213> Homo sapiens

Leu Ala Val Thr Arg Pro Phe Leu Ala Pro Arg Cys Ala Ala Arg Pro 20 25 30

Trp Pro Ala Ala Cys Cys Trp Arg Ser Gly Trp Pro Pro Cys Cys Ser 35 40 45

Pro Ser Arg Pro Pro Ser Thr Ala Thr Cys Gly Gly Thr Ala Tyr Ala 50 60

Ser Cys Ala Thr Arg Arg Arg Ser Thr Pro Pro Pro Thr 65 70 75

<210> 117

<211> 163

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (39)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 117

Val Ser Pro Gln Lys Ala Ala Ser Leu Val Arg Ile Arg Trp Arg His
1 5 10 15

Val Arg Pro Ser Pro Pro Ser Ala Ser Arg Leu Arg Arg Leu Pro Pro 20 25 30

Arg His Leu Thr Val Ala Xaa Arg Pro Arg Arg Glu Gly Val Gly Thr 35 40 45

Gly Ser Arg Ala Val Leu Cys Ile Leu Ala Thr Cys Gly Ser Lys Met 50 60

Ser Asp Ile Gly Asp Trp Phe Arg Ser Ile Pro Ala Ile Thr Arg Tyr 65 70 75 80

Trp Phe Ala Ala Thr Val Ala Val Pro Leu Val Gly Lys Leu Gly Leu 85 90 95

Ile Ser Pro Ala Tyr Leu Phe Leu Trp Pro Glu Ala Phe Leu Tyr Arg 100 105 110

Phe Gln Ile Trp Arg Pro Ile Thr Ala Thr Phe Tyr Phe Pro Val Gly 115 120 125

Pro Gly Thr Gly Phe Leu Tyr Leu Val Asn Leu Tyr Phe Leu Tyr Gln 130 135 140

Tyr Ser Thr Arg Leu Glu Thr Gly Ala Phe Asp Gly Arg Pro Ala Asp 145 150 155 160

Tyr Leu Phe

<210> 118

<211> 43

<212> PRT

<211> 314 <212> PRT

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<213> Homo sapiens
 <220>
 <221> SITE
 <222> (39)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <400> 118
 Val Ser Pro Gln Lys Ala Ala Ser Leu Val Arg Ile Arg Trp Arg His
 Val Arg Pro Ser Pro Pro Ser Ala Ser Arg Leu Arg Leu Pro Pro
 Arg His Leu Thr Val Ala Xaa Arg Pro Arg Arg
 <210> 119
 <211> 44
 <212> PRT
 <213> Homo sapiens
<400> 119
Glu Gly Val Gly Thr Gly Ser Arg Ala Val Leu Cys Ile Leu Ala Thr
Cys Gly Ser Lys Met Ser Asp Ile Gly Asp Trp Phe Arg Ser Ile Pro
Ala Ile Thr Arg Tyr Trp Phe Ala Ala Thr Val Ala
<210> 120
<211> 45
<212> PRT
<213> Homo sapiens
<400> 120
Val Pro Leu Val Gly Lys Leu Gly Leu Ile Ser Pro Ala Tyr Leu Phe
Leu Trp Pro Glu Ala Phe Leu Tyr Arg Phe Gln Ile Trp Arg Pro Ile
Thr Ala Thr Phe Tyr Phe Pro Val Gly Pro Gly Thr Gly
                             40
<210> 121
<211> 31
<212> PRT
<213> Homo sapiens
<400> 121
Phe Leu Tyr Leu Val Asn Leu Tyr Phe Leu Tyr Gln Tyr Ser Thr Arg
Leu Glu Thr Gly Ala Phe Asp Gly Arg Pro Ala Asp Tyr Leu Phe
<210> 122
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<213> Homo sapiens <220> <221> SITE <222> (39) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (300) <223> Xaa equals any of the naturally occurring L-amino acids <400> 122 Val Ser Pro Gln Lys Ala Ala Ser Leu Val Arg Ile Arg Trp Arg His Val Arg Pro Ser Pro Pro Ser Ala Ser Arg Leu Arg Arg Leu Pro Pro Arg His Leu Thr Val Ala Xaa Arg Pro Arg Arg Glu Gly Val Gly Thr Gly Ser Arg Ala Val Leu Cys Ile Leu Ala Thr Cys Gly Ser Lys Met 50 60 Ser Asp Ile Gly Asp Trp Phe Arg Ser Ile Pro Ala Ile Thr Arg Tyr Trp Phe Ala Ala Thr Val Ala Val Pro Leu Val Gly Lys Leu Gly Leu Ile Ser Pro Ala Tyr Leu Phe Leu Trp Pro Glu Ala Phe Leu Tyr Arg Phe Gln Ile Trp Arg Pro Ile Thr Ala Thr Phe Tyr Phe Pro Val Gly Pro Gly Thr Gly Phe Leu Tyr Leu Val Asn Leu Tyr Phe Leu Tyr Gln Tyr Ser Thr Arg Leu Glu Thr Gly Ala Phe Asp Gly Arg Pro Ala Asp Tyr Leu Phe Met Leu Leu Phe Asn Trp Ile Cys Ile Val Ile Thr Gly Leu Ala Met Asp Met Gln Leu Leu Met Ile Pro Leu Ile Met Ser Val 185 Leu Tyr Val Trp Ala Gln Leu Asn Arg Asp Met Ile Val Ser Phe Trp 200 Phe Gly Thr Arg Phe Lys Ala Cys Tyr Leu Pro Trp Val Ile Leu Gly Phe Asn Tyr Ile Ile Gly Gly Ser Val Ile Asn Glu Leu Ile Gly Asn 225 Leu Val Gly His Leu Tyr Phe Phe Leu Met Phe Arg Tyr Pro Met Asp 250 Leu Gly Gly Arg Asn Phe Leu Ser Thr Pro Gln Phe Leu Tyr Arg Trp Leu Pro Ser Arg Arg Gly Gly Val Ser Gly Phe Gly Val Pro Pro Ala 285

Ser Met Arg Arg Ala Ala Asp Gln Asn Gly Gly Xaa Gly Arg His Asn 290 295 300

Trp Gly Gln Gly Phe Arg Leu Gly Asp Gln 305

<210> 123

<211> 172

<212> PRT

<213> Homo sapiens

<400> 123

Ala Ala Arg Gly Leu Tyr Asp Tyr Gly Ser Gly Leu Cys Trp Ala Trp

1 5 10 15

Ala Ala Arg Pro Ser Ser Phe Val Ser Gly Ser Ser Arg Glu Ala Pro 20 25 30

Ser Ala Thr Ala Ala Pro Ser Trp Thr Arg Ser Val Thr Ala Ala Ser 35 40 45

Ala Ala Ala Ser Arg Met Ala Met Cys Ser Ser Thr Arg Pro Ala 50 60

Arg Leu Leu Pro Pro Pro Thr Thr Pro Ser Pro Arg Pro Arg Thr 65 70 75 80

Leu Thr Pro Val Asp Pro Cys Ser Gly Gly Cys Arg Leu Thr Ser Lys 85 90 95

Asp His Thr Pro Arg Val Gly Thr Gly Gln Gly Arg Gly Gln Gly Thr 100 105 110

Phe Trp Leu Ser Arg Asp Glu Gly Tyr Phe Ala Glu Asp Thr Arg Ile 115 120 125

Gly His Phe Gln Asp Ser Leu Pro Ala Pro Leu Pro Leu Pro Ser Phe 130 135 140

Glu Ala Leu Ile Lys His Lys Ser Gly Ser Pro Gly Ala Val Cys Gln 145 150 155

Arg Trp Ala Gly Gly Glu Thr Asp Arg Gly Cys Gly 165 170

<210> 124

<211> 39

<212> PRT

<213> Homo sapiens

<400> 124

Ala Ala Arg Gly Leu Tyr Asp Tyr Gly Ser Gly Leu Cys Trp Ala Trp

1 5 10 15

Ala Ala Arg Pro Ser Ser Phe Val Ser Gly Ser Ser Arg Glu Ala Pro 20 25 30

Ser Ala Thr Ala Ala Pro Ser

<210> 125

<211> 39

Val Leu Leu Pro Leu

```
<212> PRT
<213> Homo sapiens
<400> 125
Trp Thr Arg Ser Val Thr Ala Ala Ser Ala Ala Ala Ser Arg Met
Ala Met Cys Ser Ser Thr Arg Pro Ala Arg Leu Leu Pro Pro Pro
Thr Thr Pro Ser Pro Arg Pro
         35
<210> 126
<211> 41
<212> PRT
<213> Homo sapiens
<400> 126
Arg Thr Leu Thr Pro Val Asp Pro Cys Ser Gly Gly Cys Arg Leu Thr
Ser Lys Asp His Thr Pro Arg Val Gly Thr Gly Gln Gly Arg Gly Gln
Gly Thr Phe Trp Leu Ser Arg Asp Glu
<210> 127
<211> 42
<212> PRT
<213> Homo sapiens
<400> 127
Gly Tyr Phe Ala Glu Asp Thr Arg Ile Gly His Phe Gln Asp Ser Leu
Pro Ala Pro Leu Pro Leu Pro Ser Phe Glu Ala Leu Ile Lys His Lys
Ser Gly Ser Pro Gly Ala Val Cys Gln Arg
<210> 128
<211> 11
<212> PRT
<213> Homo sapiens
<400> 128
Trp Ala Gly Gly Glu Thr Asp Arg Gly Cys Gly
<210> 129
<211> 21
<212> PRT
<213> Homo sapiens
<400> 129
Ala Pro Val Ser Ile Ile Pro Phe Cys Val Cys Pro Cys Val Gln Asn
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Ala Pro Phe Phe His Phe Gln Ser Tyr Leu Trp Cys Ser Tyr Arg

Val Gln Thr Ser Arg Ser Phe 100

<210> 131 <211> 211 <212> PRT <213> Homo sapiens

<400> 131
Gly Arg Gly Pro Thr Ala Pro Ala Val Arg Asp Pro Asn Ala Ile Pro

Ala Gln Arg Ser Met Ala Ala Thr Asp Ser Met Arg Gly Glu Ala Pro $20 \hspace{1cm} 25 \hspace{1cm} 30$

Gly Ala Glu Thr Pro Ser Leu Arg His Arg Gly Gln Ala Ala Gln Pro 35 40 45

Glu Pro Ser Thr Gly Phe Thr Ala Thr Pro Pro Ala Pro Asp Ser Pro 50 55 60

Gln Glu Pro Leu Val Leu Arg Leu Lys Phe Leu Asn Asp Ser Glu Gln 65 70 75 80

Val Ala Arg Ala Trp Pro His Asp Thr Ile Gly Ser Leu Lys Arg Thr 85 90 95

Gln Phe Pro Gly Arg Glu Gln Gln Val Arg Leu Ile Tyr Gln Gly Gln 100 105 110

Leu Leu Gly Asp Asp Thr Gln Thr Leu Gly Ser Leu His Leu Pro Pro 115 120 125

Asn Cys Val Leu His Cys His Val Ser Thr Arg Val Gly Pro Pro Asn 130 135 140

Pro Pro Cys Pro Pro Gly Ser Glu Pro Gly Pro Ser Gly Leu Glu Ile 145 150 155 160

Gly Ser Leu Leu Leu Pro Leu Leu Leu Leu Leu Leu Leu Leu Trp 165 170 175

Tyr Cys Gln Ile Gln Tyr Arg Pro Phe Phe Pro Leu Thr Ala Thr Leu 180 185 190

Gly Leu Ala Gly Phe Thr Leu Leu Leu Ser Leu Leu Ala Phe Ala Met 195 200 205

Tyr Arg Pro 210

<210> 132

<211> 42

<212> PRT

<213> Homo sapiens

<400> 132

Gly Arg Gly Pro Thr Ala Pro Ala Val Arg Asp Pro Asn Ala Ile Pro 1 5 15

Ala Gln Arg Ser Met Ala Ala Thr Asp Ser Met Arg Gly Glu Ala Pro 20 25 30

Gly Ala Glu Thr Pro Ser Leu Arg His Arg 35 40

<210> 133

<211> 43

<212> PRT

<213> Homo sapiens

<400> 133

Gly Gln Ala Ala Gln Pro Glu Pro Ser Thr Gly Phe Thr Ala Thr Pro
1 10 15

Pro Ala Pro Asp Ser Pro Gln Glu Pro Leu Val Leu Arg Leu Lys Phe 20 25 30

Leu Asn Asp Ser Glu Gln Val Ala Arg Ala Trp 35 40

<210> 134

<211> 46

<212> PRT

<213> Homo sapiens

<400> 134

Pro His Asp Thr Ile Gly Ser Leu Lys Arg Thr Gln Phe Pro Gly Arg 1 5 10 15

Glu Gln Gln Val Arg Leu Ile Tyr Gln Gly Gln Leu Leu Gly Asp Asp 20 25 30

Thr Gln Thr Leu Gly Ser Leu His Leu Pro Pro Asn Cys Val

<210> 135

<211> 46

<212> PRT

<213> Homo sapiens

<400> 135

Leu His Cys His Val Ser Thr Arg Val Gly Pro Pro Asn Pro Pro Cys

Pro Pro Gly Ser Glu Pro Gly Pro Ser Gly Leu Glu Ile Gly Ser Leu

Leu Leu Pro Leu Leu Leu Leu Leu Leu Leu Trp Tyr

<210> 136

<211> 34

<212> PRT

<213> Homo sapiens

<400> 136

Cys Gln Ile Gln Tyr Arg Pro Phe Phe Pro Leu Thr Ala Thr Leu Gly

Leu Ala Gly Phe Thr Leu Leu Leu Ser Leu Leu Ala Phe Ala Met Tyr 25

Arg Pro

<210> 137

<211> 394 <212> PRT

<213> Homo sapiens

<400> 137

Thr Arg Pro Gly Ile Trp Gly Gln Ala Ala Arg Gly Ala Trp Arg Asp

Phe Gln Arg Arg Gly Leu Gly Ser Ala Gly Lys Ala Gly Ala

Met Thr Leu Ile Glu Gly Val Gly Asp Glu Val Thr Val Leu Phe Ser

Val Leu Ala Cys Leu Leu Val Leu Ala Leu Ala Trp Val Ser Thr His

Thr Ala Glu Gly Gly Asp Pro Leu Pro Gln Pro Ser Gly Thr Pro Thr

Pro Ser Gln Pro Ser Ala Ala Met Ala Ala Thr Asp Ser Met Arg Gly

Glu Ala Pro Gly Ala Glu Thr Pro Ser Leu Arg His Arg Gly Gln Ala 105

Ala Gln Pro Glu Pro Ser Thr Gly Phe Thr Ala Thr Pro Pro Ala Pro 120

Asp Ser Pro Gln Glu Pro Leu Val Leu Arg Leu Lys Phe Leu Asn Asp 135

Ser Glu Gln Val Ala Arg Ala Trp Pro His Asp Thr Ile Gly Ser Leu 155 Lys Arg Thr Gln Phe Pro Gly Arg Glu Gln Gln Val Arg Leu Ile Tyr 170 Gln Gly Gln Leu Leu Gly Asp Asp Thr Gln Thr Leu Gly Ser Leu His 185 Leu Pro Pro Asn Cys Val Leu His Cys His Val Ser Thr Arg Val Gly Pro Pro Asn Pro Pro Cys Pro Pro Gly Ser Glu Pro Arg Pro Leu Arg Ala Gly Asn Arg Gln Pro Ala Ala Ala Pro Ala Ala Pro Ala Val Ala 230 Ala Ala Leu Val Leu Pro Asp Pro Val Pro Ala Leu Leu Ser Pro Asp 250 Arg His Ser Gly Pro Gly Arg Leu His Pro Ala Pro Gln Ser Pro Gly 265 Leu Cys His Val Pro Pro Val Val Pro Pro Arg Ala Leu Gly Ser Val Ala Gly Pro Ser Gly Pro Cys Ser Pro Arg Arg Gly Gly Ser Cys Cys Leu Pro Arg Pro Ala Ser Pro Ala Cys Leu Phe Pro Leu Pro Trp Ser 310 315 Pro Ala Leu Arg Arg Gly Leu Pro Gly Leu Ala Glu Ala Pro Pro Cys Asp Arg Arg Gly Ser Gly Pro Pro Pro Gly Ala Ala Asp Pro Gln 345 Pro Ala Leu Gly Val Gly Ser Ser Gly Ser Gly Ile Cys Cys Arg Cys Leu Gly Pro Gly Gln Ser Arg Ala Ala Pro Gly Ala Arg Leu Ser Val 380 Leu Pro Glu Asp Pro Ala Ala Ser Asn Pro 390

<210> 138

<211> 266

<212> PRT

<213> Homo sapiens

<400> 138

Met Asp Arg Arg Phe Lys Leu Trp Glu Val Phe Gly Glu Lys Cys Glu $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Phe Lys Gly Ser Leu Ser Gly Ser Asn Ala Gly Ile Thr Ser Ile Glu 20 25 30

Phe Asp Ser Ala Gly Ser Tyr Leu Leu Ala Ala Ser Asn Asp Phe Ala 35 40 45

Ser Arg Ile Trp Thr Val Asp Asp Tyr Arg Leu Arg His Thr Leu Thr 50 60

Gly His Ser Gly Lys Val Leu Ser Ala Lys Phe Leu Leu Asp Asn Ala 65 70 75 80

Arg Ile Val Ser Gly Ser His Asp Arg Thr Leu Lys Leu Trp Asp Leu 85 90 95

Arg Ser Lys Val Cys Ile Lys Thr Val Phe Ala Gly Ser Ser Cys Asn 100 105 110

Asp Ile Val Cys Thr Glu Gln Cys Val Met Ser Gly His Phe Asp Lys
115 120 125

Lys Ile Arg Phe Trp Asp Ile Arg Ser Glu Ser Ile Val Arg Glu Met 130 140

Glu Leu Leu Gly Lys Ile Thr Ala Leu Asp Leu Asn Pro Glu Arg Thr 145 150 155 160

Glu Leu Leu Ser Cys Ser Arg Asp Asp Leu Leu Lys Val Ile Asp Leu 165 170 175

Arg Thr Asn Ala Ile Lys Gln Thr Phe Ser Ala Pro Gly Phe Lys Cys 180 185 190

Gly Ser Asp Trp Thr Arg Val Val Phe Ser Pro Asp Gly Ser Tyr Val 195 200 205

Ala Ala Gly Ser Ala Glu Gly Ser Leu Tyr Ile Trp Ser Val Leu Thr 210 215 220

Gly Lys Val Glu Lys Val Leu Ser Lys Gln His Ser Ser Ser Ile Asn 225 235 230

Ala Val Ala Trp Ser Pro Ser Gly Ser His Val Val Ser Val Asp Lys 245 250 255

Gly Cys Lys Ala Val Leu Trp Ala Gln Tyr 260 265

<210> 139

<211> 53

<212> PRT

<213> Homo sapiens

<400> 139

Met Asp Arg Arg Phe Lys Leu Trp Glu Val Phe Gly Glu Lys Cys Glu

1 10 15

Phe Lys Gly Ser Leu Ser Gly Ser Asn Ala Gly Ile Thr Ser Ile Glu 20 25 30

Phe Asp Ser Ala Gly Ser Tyr Leu Leu Ala Ala Ser Asn Asp Phe Ala 35 40 45

Ser Arg Ile Trp Thr 50

<210> 140

<211> 53

<212> PRT

<213> Homo sapiens

<400> 140

Val Asp Asp Tyr Arg Leu Arg His Thr Leu Thr Gly His Ser Gly Lys 1 5 10 15

Val Leu Ser Ala Lys Phe Leu Leu Asp Asn Ala Arg Ile Val Ser Gly
20 25 30

Ser His Asp Arg Thr Leu Lys Leu Trp Asp Leu Arg Ser Lys Val Cys 35 40

Ile Lys Thr Val Phe 50

<210> 141

<211> 53

<212> PRT

<213> Homo sapiens

<400> 141

Ala Gly Ser Ser Cys Asn Asp Ile Val Cys Thr Glu Gln Cys Val Met

1 5 10 15

Ser Gly His Phe Asp Lys Lys Ile Arg Phe Trp Asp Ile Arg Ser Glu 20 25 30

Ser Ile Val Arg Glu Met Glu Leu Leu Gly Lys Ile Thr Ala Leu Asp 35 40 45

Leu Asn Pro Glu Arg

<210> 142

<211> 53

<212> PRT

<213> Homo sapiens

<400> 142

Thr Glu Leu Leu Ser Cys Ser Arg Asp Asp Leu Leu Lys Val Ile Asp
1 5 10 15

Leu Arg Thr Asn Ala Ile Lys Gln Thr Phe Ser Ala Pro Gly Phe Lys
20 25 30

Cys Gly Ser Asp Trp Thr Arg Val Val Phe Ser Pro Asp Gly Ser Tyr 35 40 45

Val Ala Ala Gly Ser 50

<210> 143

<211> 54

<212> PRT

<213> Homo sapiens

<400> 143

Ala Glu Gly Ser Leu Tyr Ile Trp Ser Val Leu Thr Gly Lys Val Glu
1 5 10 15

Lys Val Leu Ser Lys Gln His Ser Ser Ser Ile Asn Ala Val Ala Trp 20 25 30

Ser Pro Ser Gly Ser His Val Val Ser Val Asp Lys Gly Cys Lys Ala 35 40 45

```
Val Leu Trp Ala Gln Tyr
      50
 <210> 144
 <211> 14
 <212> PRT
 <213> Homo sapiens
 <400> 144
 Ser Gln Leu Ala Ser Gly Lys Leu Ser Lys Tyr Trp Ala Ile
 <210> 145
 <211> 52
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (9)
 <223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (11)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (15)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 145
Pro Gly Gly Pro Cys Gly Asn Xaa Trp Xaa Pro Arg Gly Xaa Arg
Glu Lys Lys Phe Val Tyr Ser Pro Asn Leu Arg Leu Ser His Gln Ser
Leu Lys Val Leu Ala Leu Ala Thr Ala Ala Ala Ser Val Thr Leu Leu
                              40
Thr Trp Ile Leu
     50
<210> 146
<211> 124
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (67)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 146
Lys Glu Glu Gln Arg Arg Gln Ala Pro Gly Gln Asn Gly Ser Trp
Ile Val Lys Lys Val Trp Phe Ala Cys Leu Ala Val Met Ser Phe Leu
Gly Phe Ile Leu Asn Leu Gly Ala Arg Leu Ile Val Gln Pro Gln Ala
```

35 40 45

Ala Leu Ala Ser Arg Gly Leu Arg Gly Gln Gly Leu Pro Cys Glu Thr 50 55 60

Gln Val Xaa Lys Arg Thr Leu Arg Pro Gly Ala Val Gly Trp Leu Val 65 70 75 80

His Lys Gly Arg Arg Ala Leu Ser Ile Ser Arg Lys Ser Ala Leu Val 85 90 95

Ser Leu Gly Val Met Tyr Val Gly Pro Gly Lys Arg Pro Gly Val Val 100 105 110

Arg Lys His Ser Leu Leu Val Lys Met Gln Ala Arg 115 120

<210> 147

<211> 40

<212> PRT

<213> Homo sapiens

<400> 147

Lys Glu Glu Gln Arg Arg Gln Ala Pro Gly Gly Gln Asn Gly Ser Trp
1 5 10 15

Ile Val Lys Lys Val Trp Phe Ala Cys Leu Ala Val Met Ser Phe Leu 20 25 30

Gly Phe Ile Leu Asn Leu Gly Ala 35 40

<210> 148

<211> 40

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 148

Arg Leu Ile Val Gln Pro Gln Ala Ala Leu Ala Ser Arg Gly Leu Arg
1 5 10 15

Gly Gln Gly Leu Pro Cys Glu Thr Gln Val Xaa Lys Arg Thr Leu Arg 20 25 30

Pro Gly Ala Val Gly Trp Leu Val 35 40

<210> 149

<211> 44

<212> PRT

<213> Homo sapiens

<400> 149

His Lys Gly Arg Arg Ala Leu Ser Ile Ser Arg Lys Ser Ala Leu Val 1 5 10 15

Ser Leu Gly Val Met Tyr Val Gly Pro Gly Lys Arg Pro Gly Val Val 20 25 30

Arg Lys His Ser Leu Leu Val Lys Met Gln Ala Arg 35 40

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<210> 150
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<212> PRT

<213> Homo sapiens

<400> 150

His Ile Ile Phe Phe Arg Lys Trp Ser Thr Leu Ala Phe Ile Ile Pro 1 5 10 15

Tyr Ser Ser Val Ser Gly Ile Ile Ser Ile Ala Ser Phe Met Ser Val 20 25 30

Ala Ser Glu Ile Ala Ser Leu Val Phe Leu Arg Lys Asn Thr Thr Phe 35 40 45

Trp Ser Arg Asn Ser Ser Gly Arg Gly Val Gln Ser 50 55 60

<210> 151

<211> 110

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (73)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 151

Val Leu Cys Gly Pro Gly Ala Ala Thr Arg Lys Gly Ser Gln Leu Asn
1 5 10 15

Pro Ala Val Ala Ser Pro Ala Phe Pro His Pro Gly Phe Phe Ser Leu 20 25 30

Ser Asn Leu Gly Ser Ser Tyr Ser Ser Ser Asn Thr Met Tyr Ser Cys 35 40 45

Pro Ser Glu Pro Leu His Arg Leu Ser Pro Leu Pro Lys Glu Thr Pro 50 55 60

Leu Leu Ser Ser Pro Ser Pro Thr Xaa Pro Ser Gln Pro Ala Glu Leu 65 70 75 80

Trp Phe Ile Phe Cys Ile Arg Val Lys Gly His Leu Pro Cys Gln Ser

Thr Pro Thr Leu Pro Leu Gln Ser Ser Glu Met Ser Ser Leu 100 105 110

<210> 152

<211> 39

<212> PRT

<213> Homo sapiens

<400> 152

Val Leu Cys Gly Pro Gly Ala Ala Thr Arg Lys Gly Ser Gln Leu Asn
5 10 15

<211> 60

Pro Ala Val Ala Ser Pro Ala Phe Pro His Pro Gly Phe Phe Ser Leu 20 25 30

Ser Asn Leu Gly Ser Ser Tyr 35

```
<210> 153
```

<211> 40

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 153

Ser Ser Ser Asn Thr Met Tyr Ser Cys Pro Ser Glu Pro Leu His Arg
1 5 10 15

Leu Ser Pro Leu Pro Lys Glu Thr Pro Leu Leu Ser Ser Pro Ser Pro 20 25 30

Thr Xaa Pro Ser Gln Pro Ala Glu 35 40

<210> 154

<211> 31

<212> PRT

<213> Homo sapiens

<400> 154

Leu Trp Phe Ile Phe Cys Ile Arg Val Lys Gly His Leu Pro Cys Gln 1 5 15

Ser Thr Pro Thr Leu Pro Leu Gln Ser Ser Glu Met Ser Ser Leu 20 25 30

<210> 155

<211> 47

<212> PRT

<213> Homo sapiens

<400> 155

Thr Ser Ser Pro Gln Arg Arg Leu Pro Ala Gly Pro Arg Pro Pro Thr
1 5 10 15

Val Glu Pro Pro Ala Glu Pro Pro Ala Glu Val Pro Pro Ser Gly Thr

Pro Pro Pro Pro Ser Thr Ser Glu Pro Leu Ser Arg Arg Pro 35 40 45

<210> 156

<211> 432

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (111)

<223> Xaa equals any of the naturally occurring L-amino acids





		87													
<22	1> 5	SITE (115) Kaa e		ls ar	ıy of	th∈	e nat	ural	.ly o	occur	ring	η L−a	amino	aci	ds
<22	1> 5 2> (SITE (206) Kaa e		.s an	ıy of	the	nat	ural	.1y c	occur	ring	η L−a	mino	aci	.ds
<22	1> 5 2> (SITE (316) Kaa e		s an	y of	the	nat	ural	ly c	occur	ring	ı L-a	ıminc	aci	.ds
<22	1> S 2> (SITE 395) (aa e	qual	s an	y of	the	nat	ural	ly o	ccur	ring	L-a	mino	aci	ds
	0> 1 Ser	56 Ser	Pro	Gln 5	Arg	Arg	Leu	Pro	Ala 10		Pro	Arg	Pro	Pro 15	
Val	Glu	Pro	Pro 20	Ala	Glu	Pro	Pro	Ala 25	Glu	Val	Pro	Pro	Ser 30	Gly	Thr
Pro	Pro	Pro 35	Pro	Ser	Thr	Ser	Glu 40	Pro	Leu	Ser	Arg	Arg 45	Arg	Pro	Met
Trp	Gly 50	Phe	Arg	Leu	Leu	Arg 55	Ser	Pro	Pro	Leu	Leu 60	Leu	Leu	Leu	Pro
Gln 65	Leu	Gly	Ile	Gly	Asn 70	Ala	Ser	Ser	Cys	Ser 75	Gln	Ala	Arg	Thr	Met 80
Asn	Pro	Gly	Gly	Ser 85	Gly	Gly	Ala	Arg	Cys 90	Ser	Leu	Ser	Ala	Glu 95	Val
Arg	Arg	Arg	Gln 100	Cys	Leu	Gln	Leu	Ser 105	Thr	Val	Pro	Gly	Ala 110	Xaa	Pro
Gln	Arg	Xaa 115	Asn	Glu	Leu	Leu	Leu 120	Leu	Ala	Ala	Ala	Gly 125	Glu	Gly	Leu
Glu	Arg 130	Gln	Asp	Leu	Pro	Gly 135	Asp	Pro	Ala	Lys	Glu 140	Glu	Pro	Gln	Pro
Pro 145	Pro	Gln	His	His	Val 150	Leu	Tyr	Phe	Pro	Gly 155	Asp	Val	Gln	Asn	Tyr 160

His Glu Ile Met Thr Arg His Pro Glu Asn Tyr Gln Trp Glu Asn Trp 170 Ser Leu Glu Asn Val Ala Thr Ile Leu Ala His Arg Phe Pro Asn Ser 180 Tyr Ile Trp Val Ile Lys Cys Ser Arg Met His Leu His Xaa Phe Ser 200

Cys Tyr Asp Asn Phe Val Lys Ser Asn Met Phe Gly Ala Pro Glu His

Asn Thr Asp Phe Gly Ala Phe Lys His Leu Tyr Met Leu Leu Val Asn





Ala Phe Asn Leu Ser Gln Asn Ser Leu Ser Lys Lys Ser Leu Asn Val 245 250 255

Trp Asn Lys Asp Ser Ile Ala Ser Asn Cys Arg Ser Ser Pro Ser His 260 265 270

Thr Thr Asn Gly Cys Gln Gly Glu Lys Val Arg Thr Cys Glu Lys Ser 275 280 285

Asp Glu Ser Ala Met Ser Phe Tyr Pro Pro Ser Leu Asn Asp Ala Ser 290 295 300

Phe Thr Leu Ile Gly Phe Ser Lys Gly Cys Val Xaa Leu Asn Gln Leu 305 310 315 320

Leu Phe Glu Leu Lys Glu Ala Lys Lys Asp Lys Asn Ile Asp Ala Phe 325 335

Ile Lys Ser Ile Arg Thr Met Tyr Trp Leu Asp Gly Gly His Ser Gly 340 345 350

Gly Ser Asn Thr Trp Val Thr Tyr Pro Glu Val Leu Lys Glu Phe Ala 355 360 365

Gln Thr Gly Ile Ile Val His Thr His Val Thr Pro Tyr Gln Val Arg 370 380

Asp Pro Met Arg Ser Trp Ile Gly Lys Glu Xaa Lys Lys Phe Val Gln 385 390 395

Lys Glu Ala Pro Ser Ile Glu Asn His Phe Arg Val His Glu Val Phe
420 425 430